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# **QMS® 3260/4032**

## **Print System**

### **Options**

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**1800499-001B**

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# 1

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## Introduction

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### **In This Chapter . . .**

- “Introduction” on page 1-2
- “About This Manual” on page 1-2

# Introduction

This manual provides detailed instructions for installing your QMS 3260/4032 Print System options. Use this guide in conjunction with your other printer documentation. This manual can be used for the QMS 3260 Print System or the QMS 4032 Print System. Either printer is referred to as QMS 3260/4032 Print System.

## About This Manual

This manual contains printer configuration and reference information. It is divided into the following sections:

<b>1</b>	<b>Introduction</b>	Provides an overview of the manual.
<b>2</b>	<b>Hardware Options</b>	Describes how to install a face-up tray, duplexer, envelope feeder, high-capacity input feeder, high-capacity output stacker, staples, security key, and BuzzBox Lite warning light/buzzer.
<b>3</b>	<b>Memory, TOD Clock, and System Software</b>	Describes how to install printer memory (SIMMs), time-of-day clock, and update the system software.
<b>4</b>	<b>Interfaces and Daughterboards</b>	Describes how to install network (CrownNet Token-Ring, CrownNet Ethernet, and DECnet) and LocalTalk interfaces, a SCSI interface, and a time-of-day clock.
<b>5</b>	<b>Emulations, Fonts, and Other Software</b>	Describes how to download fonts and emulations and how to install a Kanji internal hard disk.



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## 6 Storage Devices

Describes how to install and configure hard disks.

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## A QMS Customer Support

Provides world-wide product sales and support telephone numbers and describes how to communicate with QMS through the Internet, and Q-FAX.

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## Typographic Conventions

The following typographic conventions are used in this manual:

Mixed-Case Courier	Text you type, and messages and information displayed on the screen
<i>Mixed-Case</i> <i>Italic</i> <i>Courier</i>	Variable text you type; replace the italicized word(s) with information specific to your printer or computer
UPPERCASE COURIER	Information displayed in the printer message window
<b>lowercase bold</b>	PostScript operators and DOS commands
<i>lowercase italic</i>	Variable information in text
UPPERCASE	File and utility names
↵	Press the Enter key (PC) or Return key (Macintosh)
⌘	Press and hold down the Ctrl key (PC)
	In Adobe Acrobat PDF versions of the manual, click to play a QuickTime video clip of the procedure described in the text.

» **Note:** Notes contain tips, extra information, or important information that deserves emphasis or reiteration.

▲ **Caution:** Cautions present information that you need to know to avoid equipment damage, process failure, or extreme annoyance.

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💡 **WARNING!** Warnings indicate the possibility of personal injury if a specific procedure is not performed exactly as described in the manual.

**ACHTUNG!** Bitte halten Sie sich exakt an die im Handbuch beschriebene Vorgehensweise, da sonst Verletzungsgefahr bestehen könnte.

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# 2

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## Hardware Options

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### **In This Chapter . . .**

- “Face-Up Tray” on page 2-2
  - “Duplexer” on page 2-8
  - “Envelope Feeder” on page 2-11
  - “High-Capacity Input Feeder (HCIF)” on page 2-13
  - “High-Capacity Output Stacker” on page 2-17
  - “Security Key” on page 2-25
  - “BuzzBox Lite” on page 2-28
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-

# Introduction

This chapter provides the installation instructions for the face-up tray, duplexer, envelope feeder, High-Capacity Input Feeder, high-capacity output stacker, security key, and BuzzBox Lite warning light/buzzer.

## Face-Up Tray

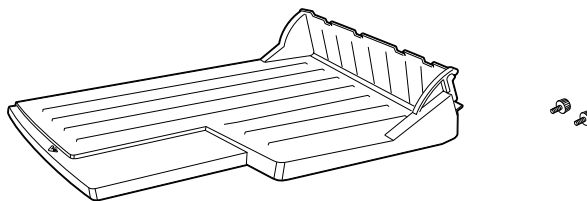
The face-up tray enables you to print to the side exit of the printer. Your documents are stacked in the tray with the first page facing up. There are two ways to install the face-up tray: without a duplexer installed or with a duplexer installed on the printer.

### Installing the Face-Up Tray

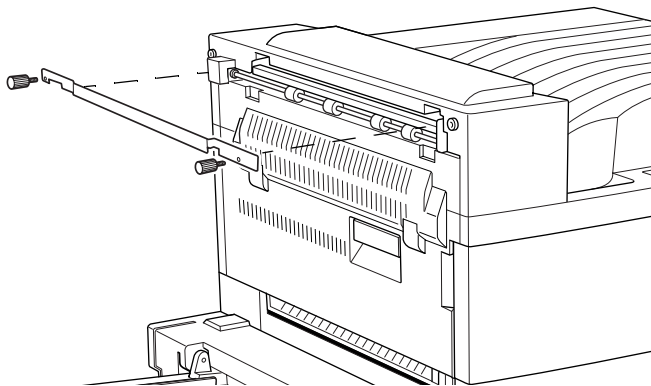
#### With No Duplexer Attached

- 1 **Unpack the face-up tray and find these parts:**

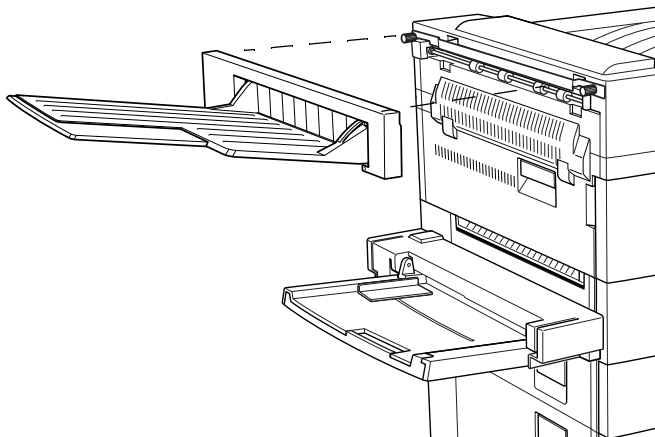
- Face-up tray
- Thumbscrews



- 2 **Attach the connecting plate to the printer, using the two thumbscrews.**



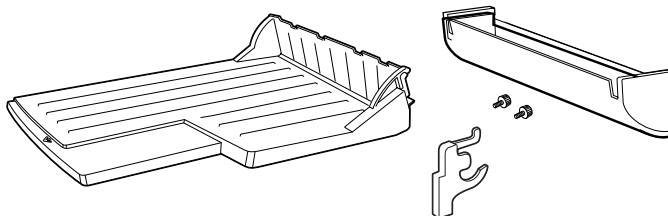
- 3 Firmly attach the face-up tray to the connecting plate



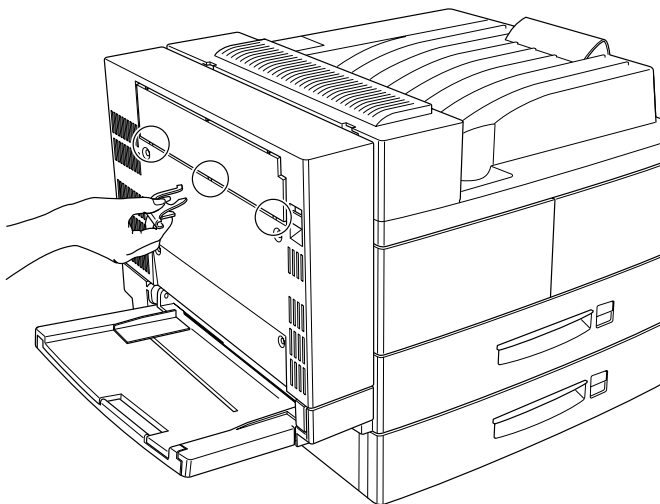
### With a Duplexer Attached

- 1 Unpack the face-up tray and find its parts:

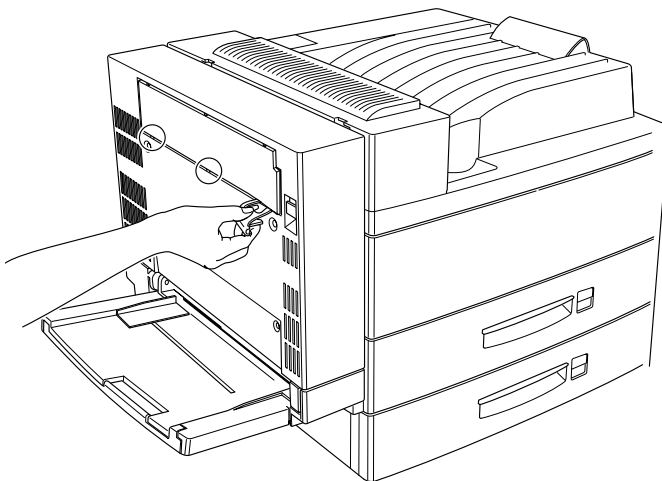
- Face-up tray
- Face-up tray holder
- Thumbscrews
- Cutter/supporter



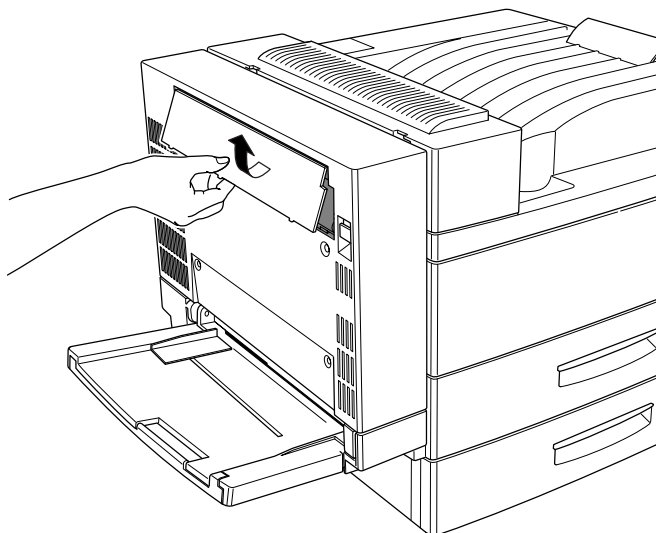
- 2 Holding the supplied cutter/supporter sideways, insert it into any one of the three connecting parts on the lower end of the filler panel.



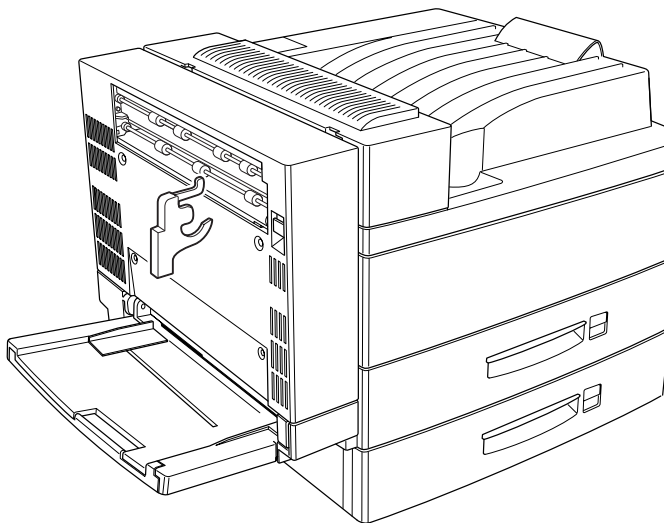
- 3 Move the cutter/supporter up and down to break the connecting part. Repeat this step to break the other two connecting parts.



- 4 Lift up the filler panel as shown to remove it from the printer.

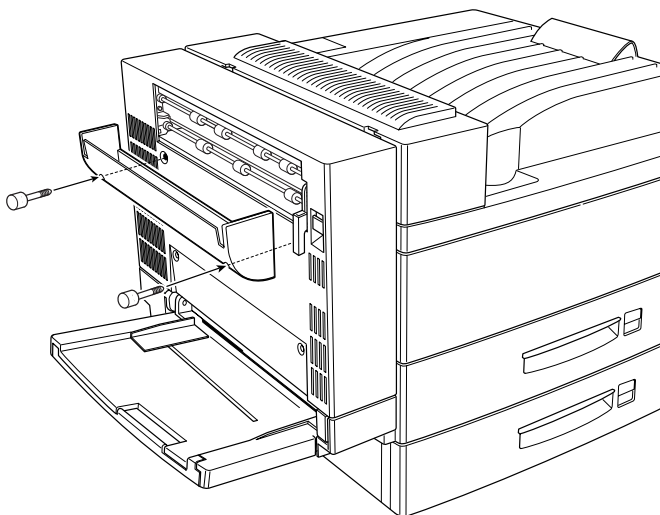


- 5 Insert the cutter/supporter into the slots at the front end of the duplexer. It is used to support the face-up tray.

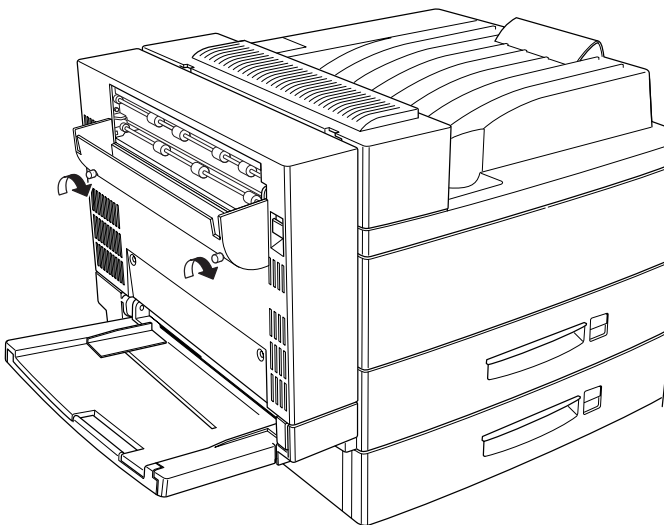


## Face-Up Tray

- 6 Insert the two thumb-screws into the face-up tray holder.

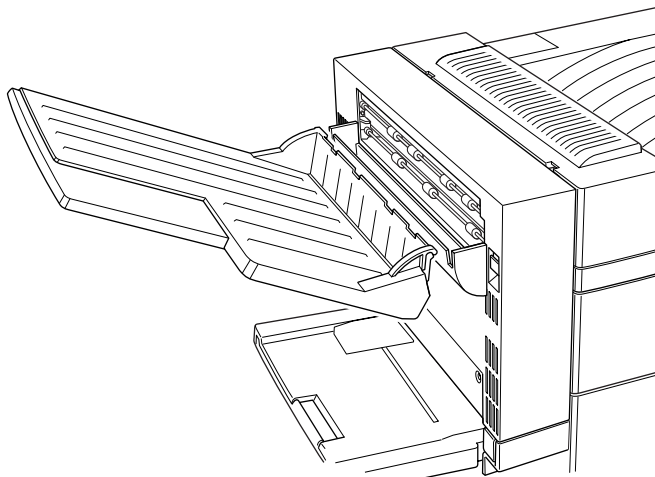


- 7 Attach the face-up tray holder to the printer and tighten the two thumb-screws.





- 8 Attach the face-up tray onto the holder.**



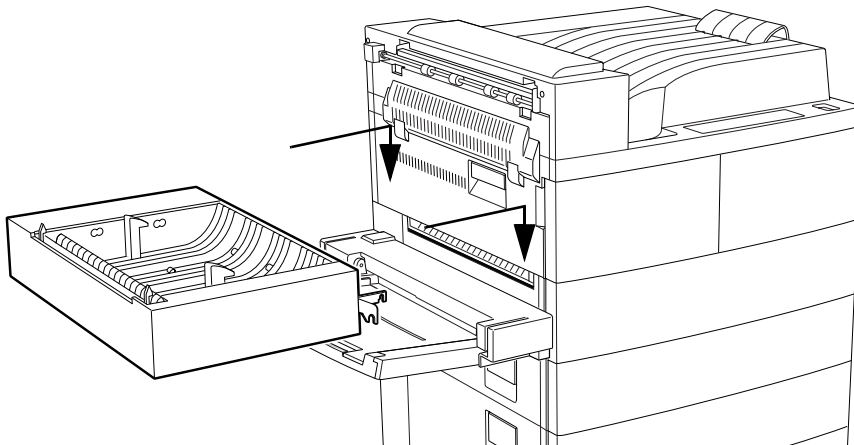
# Duplexer

The duplexer enables you to print your documents using both the front and back sides of the paper. The duplexer interrupts the normal route of the paper path and flips the paper over to feed it back for printing on the back side.

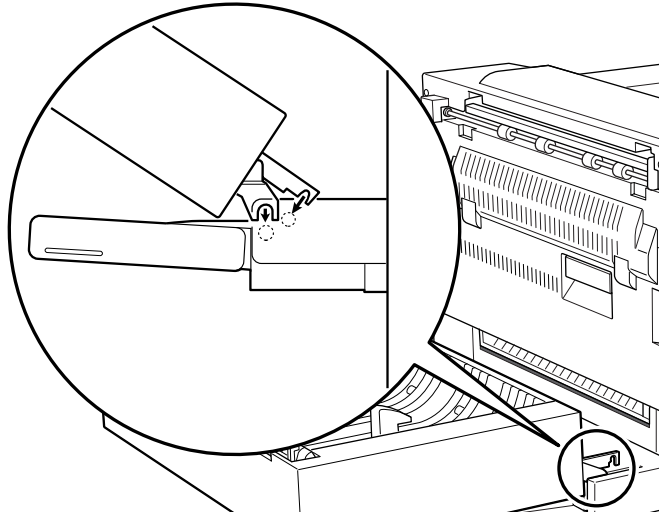
- » **Note:** *If you are installing the duplexer to the base model printer with the minimum memory, we suggest you upgrade your printer's memory so that duplexing can operate efficiently with your printer. See "Single In-Line Memory Modules," chapter 3, for instructions on adding printer memory.*

## Installing the Duplexer

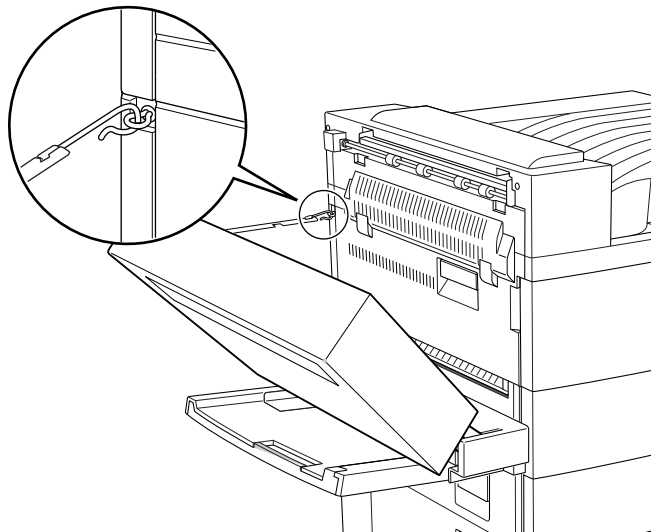
- 1 Unpack the duplexer and make sure the multipurpose tray is folded down.
- 2 Hook the duplexer into the slots of the feeder.



- 3 Firmly insert the stopper on the right side of the duplexer into the printer.

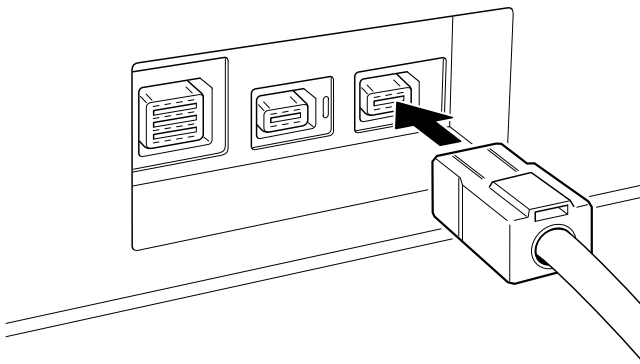


- 4 Secure the duplexer by hooking the safety wire to the printer.

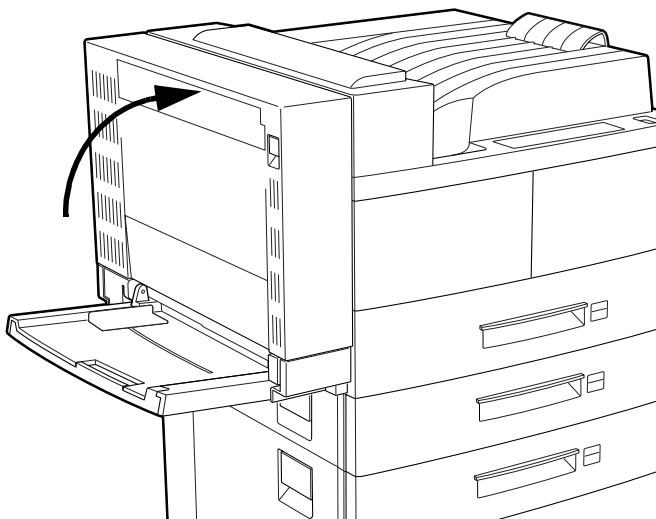


## Duplexer

- 5 Plug the duplexer cable into the printer.



- 6 Close the duplexer.

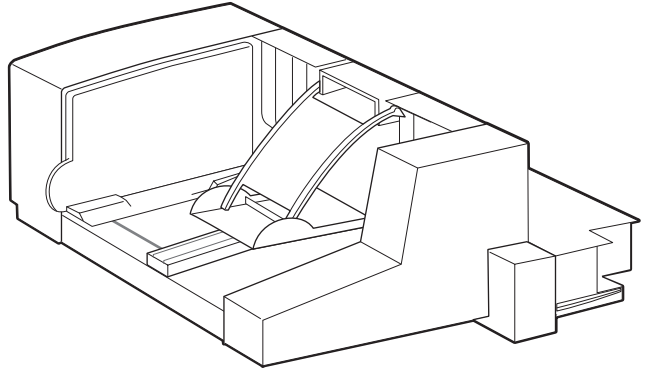


# Envelope Feeder

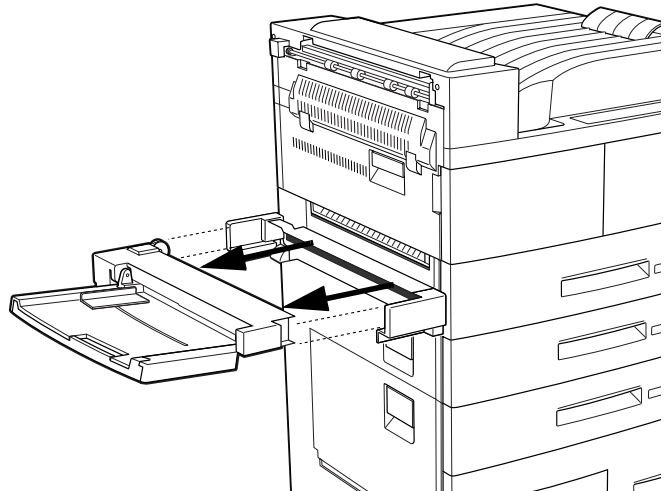
The envelope feeder enables you to print on a variety of sizes of envelopes on your printer. It installs in place of the multipurpose tray.

## Installing the Envelope Feeder

- 1 Unpack the envelope feeder.



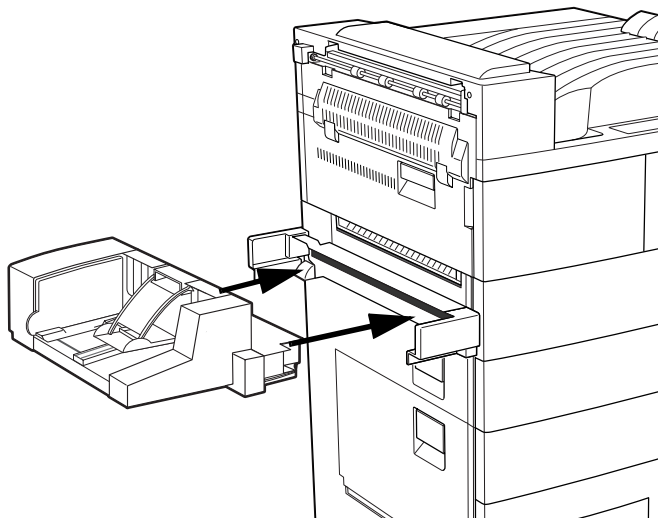
- 2 Remove the multipurpose tray from the printer.



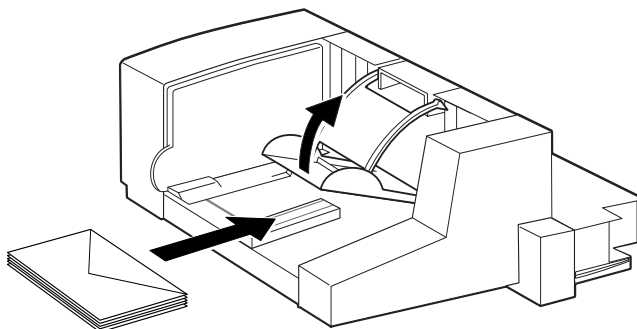
## Envelope Feeder

- 3 Holding the envelope feeder horizontally, attach it to the printer.

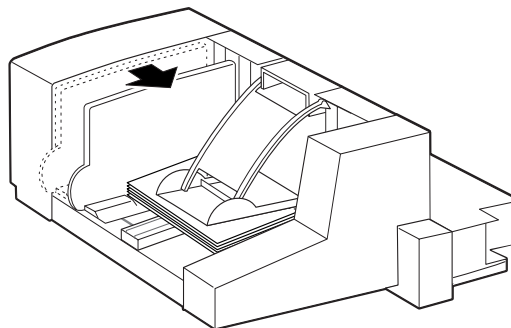
» **Note:** *Make sure the two stubs on the feeder go securely into the slots on the printer.*



- 4 Lift the envelope stopper, and insert an envelope stack with the flap up and the long edge first.



- 5 Slide the side guide in so it lightly touches the edge of the envelope stack.



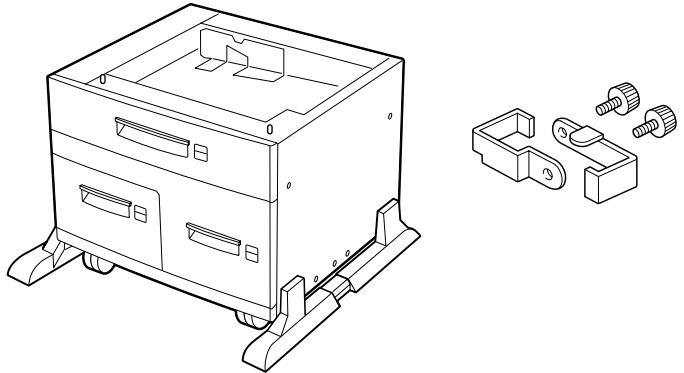
# High-Capacity Input Feeder (HCIF)

The High-Capacity Input Feeder installs below your printer. It gives you three more input trays to load a variety of sizes of paper.

- » **Note:** *If you are installing the HCIF to the base model printer with the minimum memory, we suggest you upgrade your printer's memory so that the HCIF can operate efficiently with your printer. See "Single In-Line Memory Modules," chapter 3, for instructions on adding printer memory.*

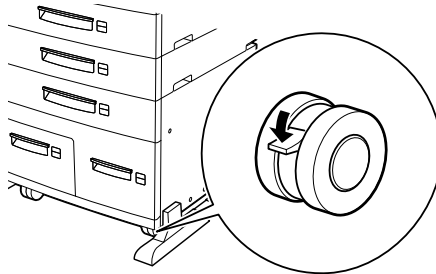
## Installing the High-Capacity Input Feeder

- 1 Unplug the power and the communication cables from the printer.
- 2 Unpack the HCIF and its parts, and remove any packing material or tape.



- 3 Lock the front roller on the HCIF.

- » **Note:** *Make sure the connecting cable is fed through the cable notch on the rear of the HCIF.*



## High-Capacity Input Feeder (HCIF)

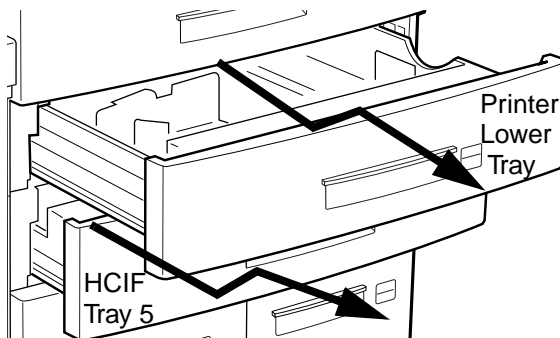
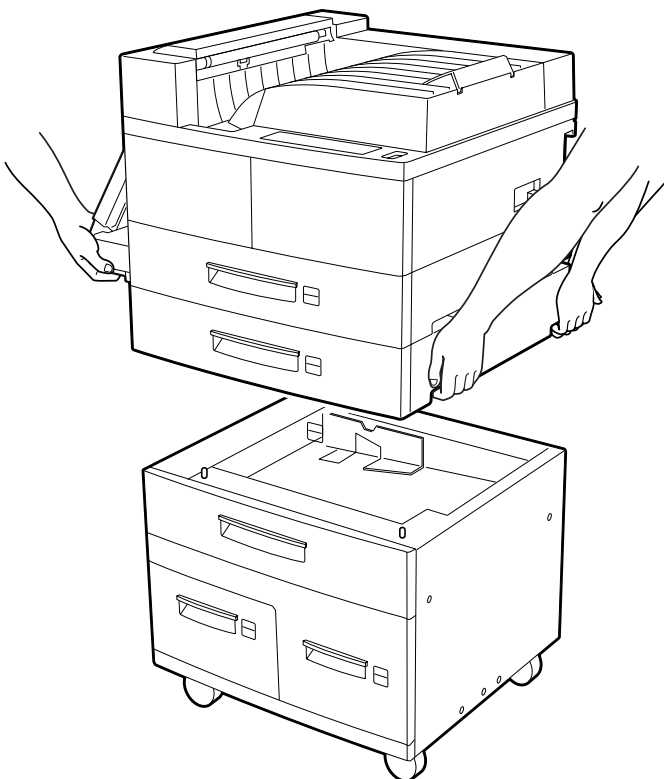
- 4 With the help of another person, lift the printer and lower it onto the HCIF, while aligning the covers of the printer and HCIF.



**WARNING!** *The printer weighs approximately 91 lbs (41 kg) without consumables. Do not attempt to lift the printer by yourself.*

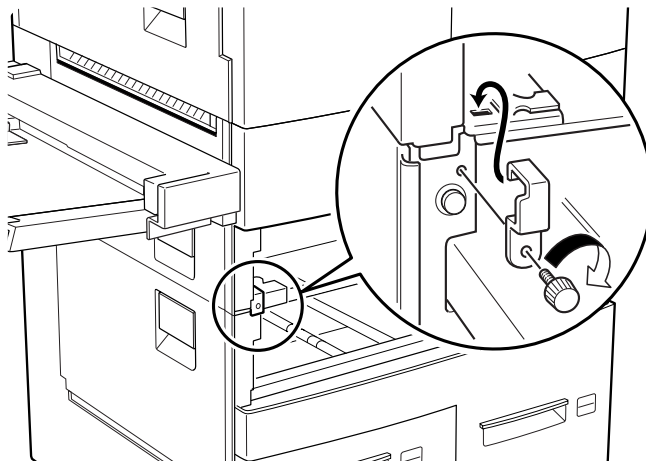
**ACHTUNG!** *Der Drucker hat ein Gewicht von ungefähr 41 kg. Bitte versuchen Sie niemals, den Drucker alleine anzuheben oder zu transportieren.*

- 5 Pull the lower tray of the printer all the way out until it stops, then lift it up slightly to remove it.
- 6 Remove the tray 5 of the HCIF.

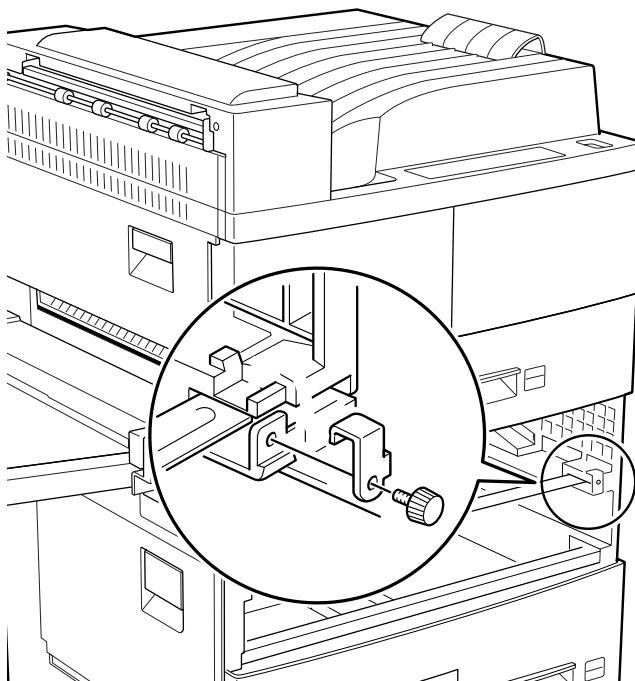




- 7** Attach one mounting bracket to the left side of the printer/HCIF frame and secure it with a thumbscrew.

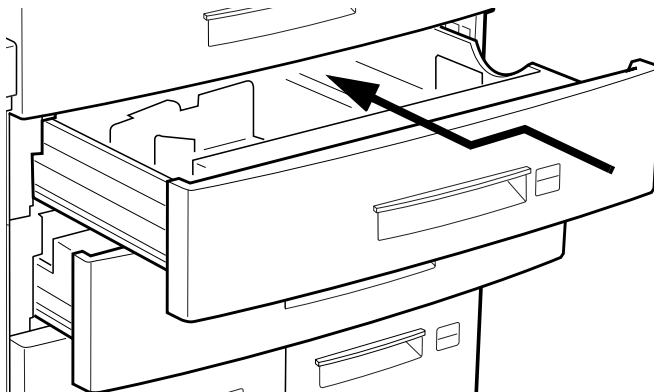


- 8** Attach the other mounting bracket to the right side of the printer/HCIF frame, and secure it with a thumbscrew.

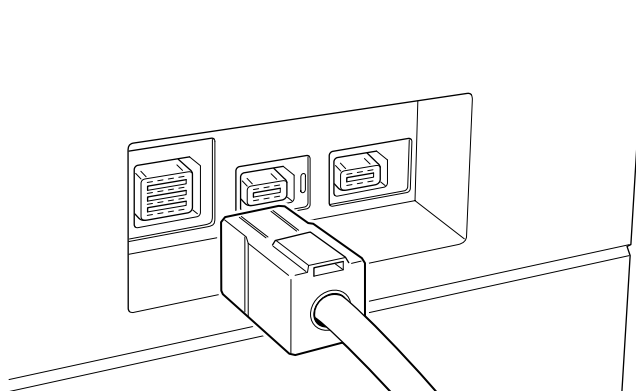


## High-Capacity Input Feeder (HCIF)

- 9 Insert the trays back into the printer and HCIF.



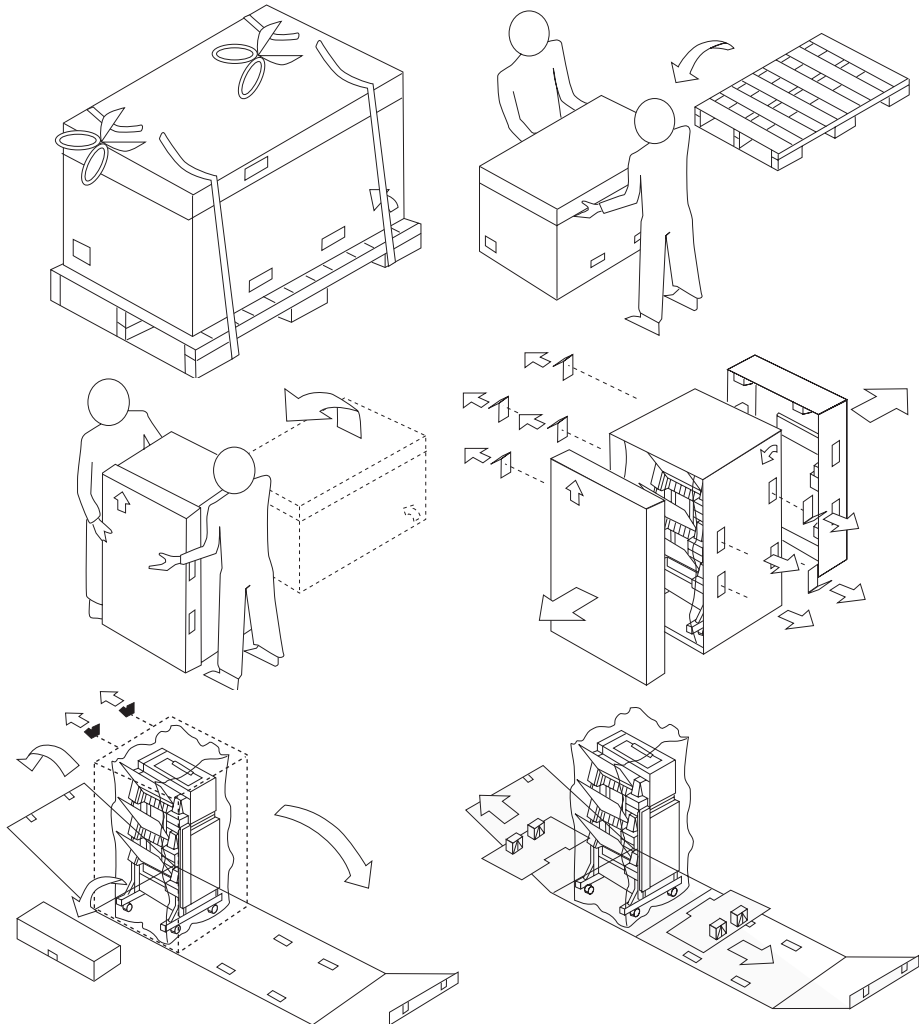
- 10 Plug the connecting cable from the HCIF into the rear of the printer.



# High-Capacity Output Stacker


## Installing the High-Capacity Output Stacker

- 1    Unpack the HCOS and its components. 

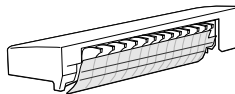


- 2    With another person, lift the HCOS from the pallet.

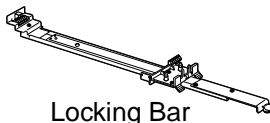
## High-Capacity Output Stacker

- 3 Check for these components included in the shipping box: 

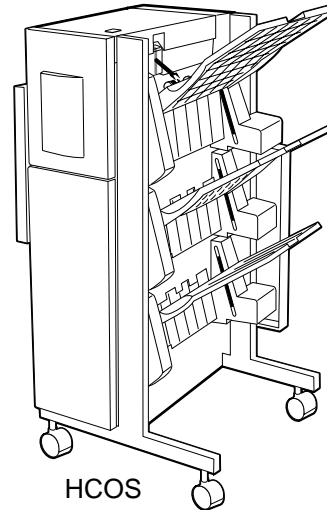
» **Note:** Check also for an alignment bracket.



Vertical Transport

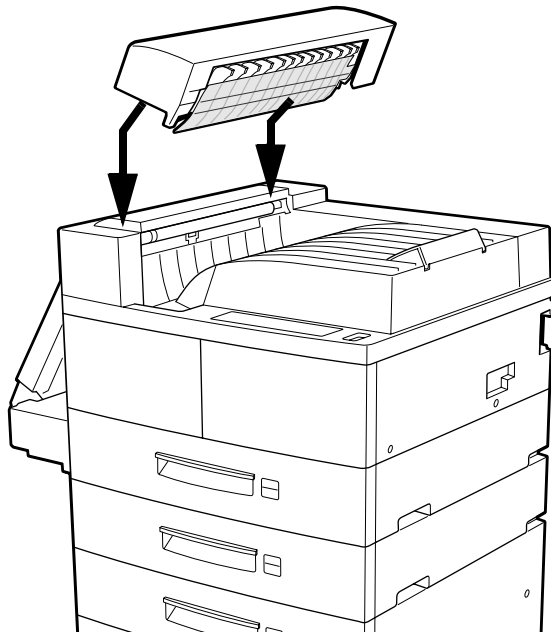


Locking Bar

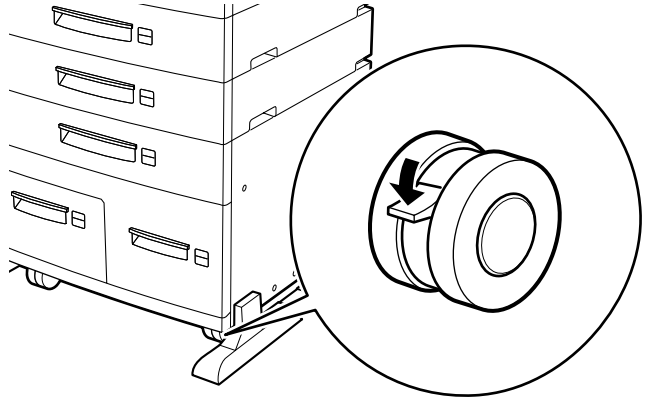



HCOS

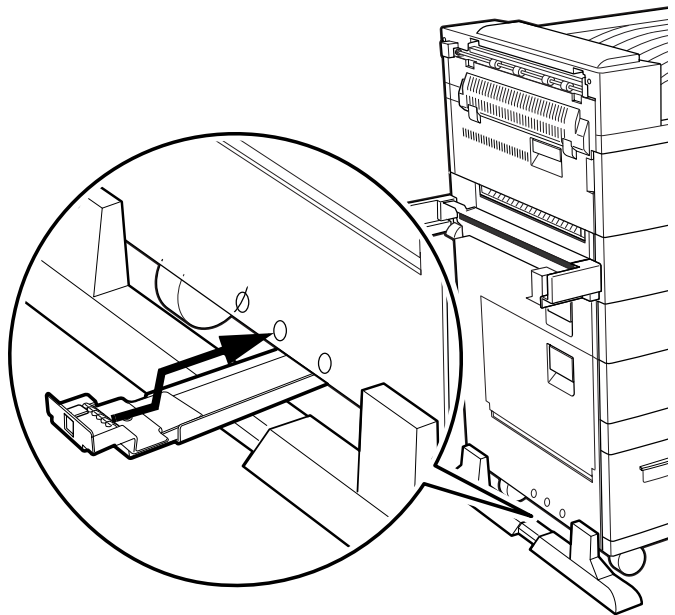
- 4 Install the vertical transport onto the top of the printer. 



- 5 Lock the rollers on the printer.**

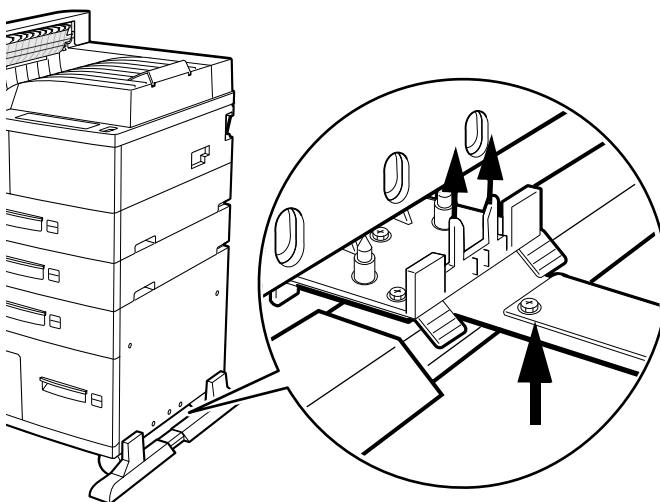



- 6 Pass the locking bar under the printer and hook it into the slots on the left side of the printer.** 

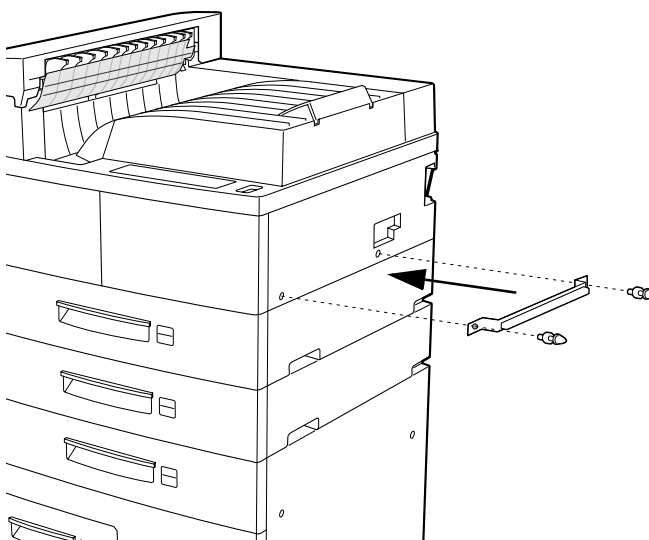


## High-Capacity Output Stacker

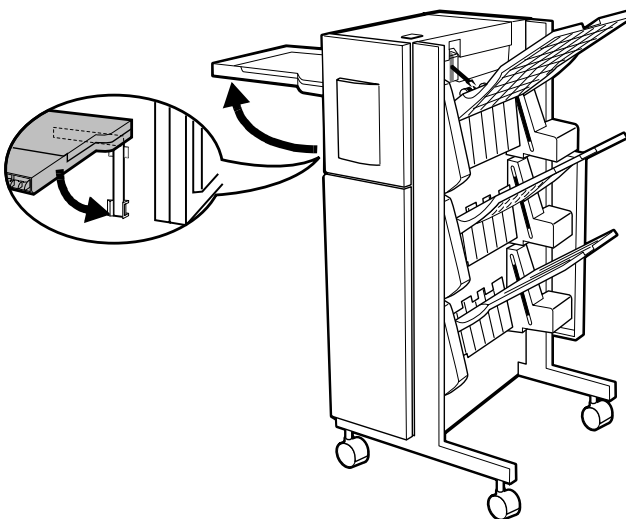
- 7 Push up the supporting unit on the locking bar to firmly secure it between the printer cover and the printer.



- 8 Attach the alignment bracket with the screws to the printer. 



- 9 Raise the horizontal transport, then flip down the two supporters so that it remains horizontal. »

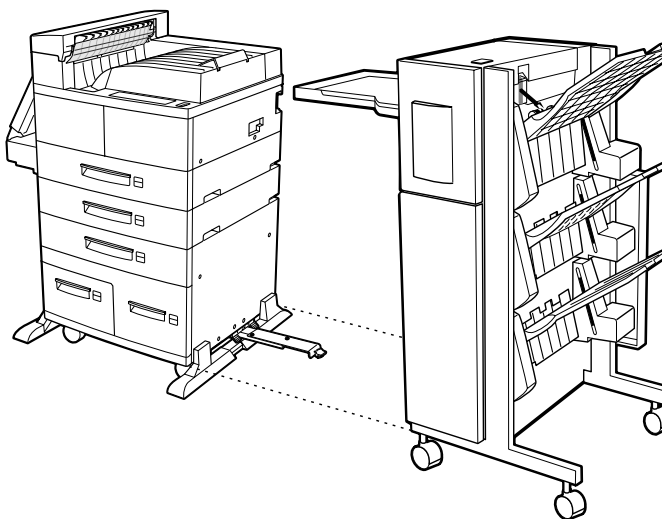


- 10 Move the HCOS close enough to the printer for cable connection. »



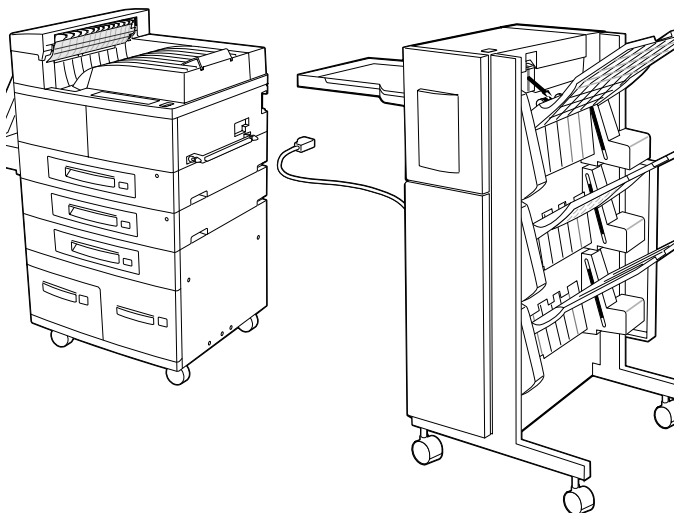
»

**Note:** Make sure the HCOS and the printer align correctly.

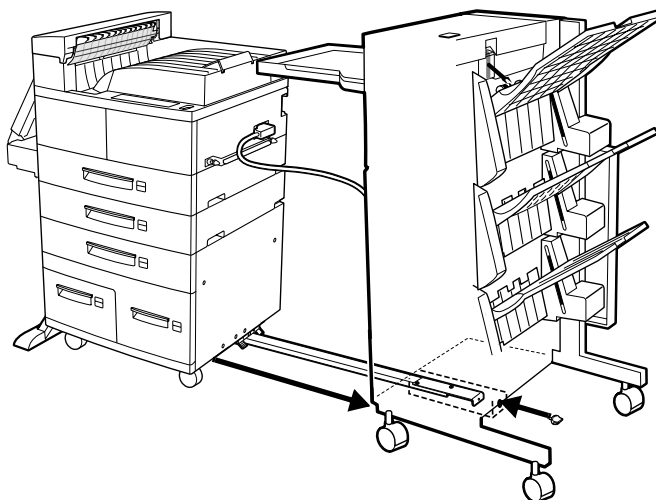


## High-Capacity Output Stacker

- 11 Plug the power cable of the HCOS into the connector on the side of the printer.



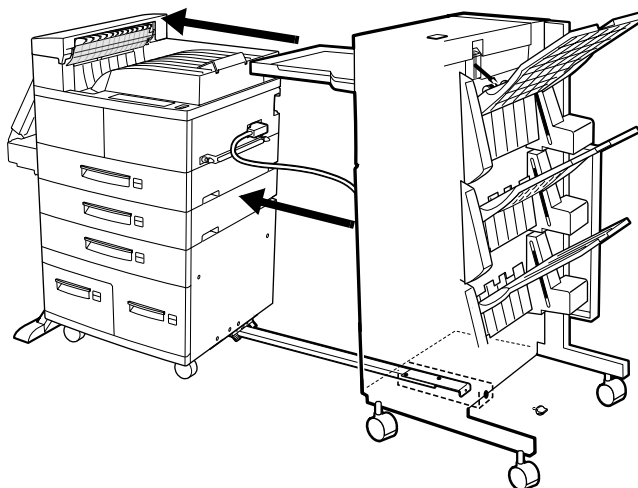
- 12 Insert the end of the locking bar into the opening on the bottom of the HCOS.



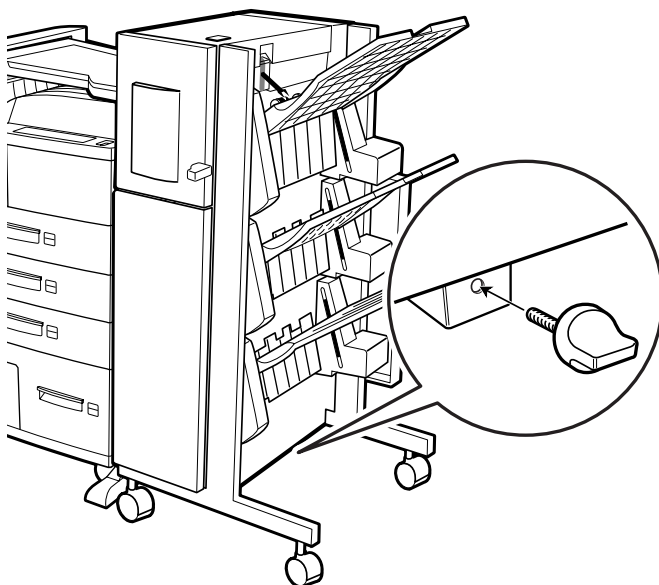


- 13 Gently push the HCOS toward the printer until they lock in place.**

Make sure the horizontal transport is positioned correctly on the top of the printer and its far end goes securely into the vertical transport.

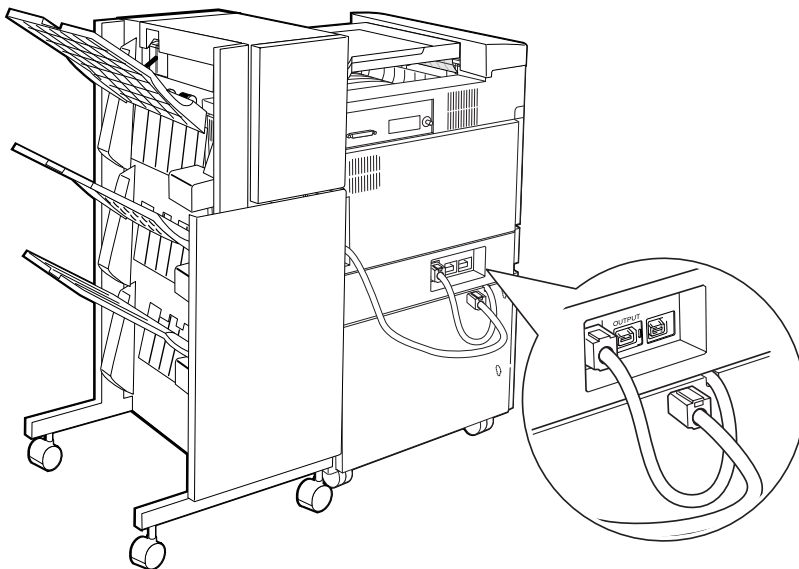


- 14 Insert and tighten the locking screw to secure the HCOS to the printer.**



## High-Capacity Output Stacker

- 15 Plug the interface cable of the HCOS into the output connector on the printer.



# Security Key

A security key is available to password-protect the Operator Control and the Administration menus. When the security key is installed, the Installation menu appears in the printer's configuration menu.

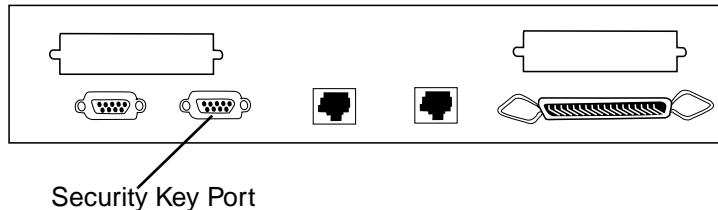
## What's in the Kit?

- A security key (9-pin connector labeled "Key")

## Setting Configuration Menu Passwords

- 1 Insert the security key into the "Key" port on the interface panel.

▲ **Caution:** *Even though both the security key and serial interface have a DB-9 interface, the connectors are keyed, and they can't be interchanged. Make sure that you install the security key only in the port marked "Key."*



- 2 Press the Online button to take the printer off line.
- 3 Press the Menu button.
- 4 Access the Installation/Operator Passwrd or Installation/Admin Password menu.

You can use the Installation menu to password-protect just the Operator Control menu, just the Administration menu, or both.

### 5 Select the password(s).

- » **Note:** *Keep in mind that the password(s) you select also protect the Admin mode of Remote Console, available through QMS CrownAdmin or a telnet session.*

<b>Menu</b>	Installation/Operator Passwr Installation/Admin Password
<b>Choices</b>	Up to 16 characters (any letter, number, or symbol)
<b>Default</b>	Blank (no password)
<b>Notes</b>	Passwords are case sensitive and are entered as an alphanumeric string.  If you choose a password that is not 16 characters long, press the Select button until you get to the rightmost character of the password field. Enter the password character string the same as you would enter an alphanumeric string. See chapter 2, "Printer Configuration" in the <i>Reference</i> for complete information on how to enter alphanumeric characters.

### 6 Enable the password(s).

<b>Menu</b>	Installation/Use Operator Pwd Installation/Use Admin Pwd
<b>Choices</b>	<b>On</b> —Requires the correct password to access to the Administration and/or Operator Control menus.  <b>Off</b> —Does not require a password to access the Administration and/or Operator Control menus.
<b>Default</b>	Off
<b>Notes</b>	Enter the passwords in the Installation/Operator Passwr and Installation/Admin Password menus.

### 7 Save your changes and exit from the configuration menu.

### 8 Remove the security key, and store it in a secure location.

After you exit from the menu and remove the security key, the Installation menu is removed from the control panel message window.

### 9 Press the Online button to put the printer back on line.

## Using Configuration Menu Passwords

Once a menu is password protected, you can't enter the menu or make changes in it until you enter a valid password.

- » **Note:** *Password protection does not prevent software commands from changing functions.*
- **If a password is required** to enter the Operator Control or Administration menu, the message window displays  
  
ENTER PASSWORD  
  
when you use the Select button to enter the menu. Enter the password, or press the Menu button to return to the previous menu.
- **If you enter an invalid password**, the message window flashes  
  
INVALID PASSWORD  
  
for three seconds and then returns you to the configuration menu.
- **If you forget the password**, repeat the procedure in "Setting Configuration Menu Passwords" on page 2-25.

# BuzzBox Lite

BuzzBox Lite warns you with a buzzer and/or a blinking light any time the printer goes off line. This means you're alerted to print job interruptions, such as empty media cassettes.

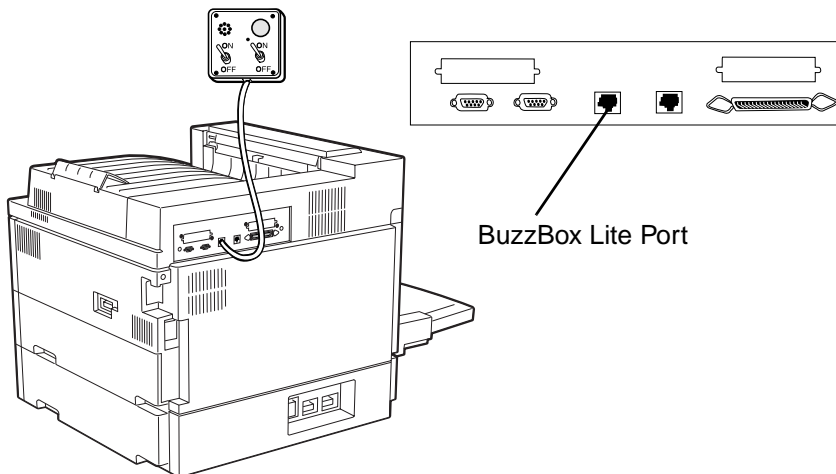
## What's in the Kit?

The BuzzBox Lite kit contains the following items:

- BuzzBox Lite unit
- RJ-11 cable
- Adhesive-backed clips

## Installing BuzzBox Lite

- 1 Attach one end of the RJ-11 cable connector to the port labeled "BuzzBox."
- 2 Attach the other end of the RJ-11 cable to the BuzzBox Lite unit.



**3 Choose a location to mount the BuzzBox Lite unit.**

Ensure that the unit does not

- interfere with paper exiting the printer.
- cover any vents, doors, connectors, or labels.
- cause the BuzzBox ribbon cable to stretch or twist.

**4 Use the adhesive-backed clips provided to mount the BuzzBox Lite unit where the printer operator can see and/or hear it.**

We've provided a cable, but you can use up to a 500-foot cable (RJ-11 4-pin or 6-pin).

**5 To test the BuzzBox Lite, make sure its switches are on, then press the printer's Online button to take the printer off line.**

- » **Note:** *You can use the BuzzBox switches to enable or disable the buzzer, the light, or both.*

When the printer goes off line, the light flashes and the buzzer sounds until the printer is placed back on line or until the light and buzzer switches are turned off.

**Using BuzzBox Lite**

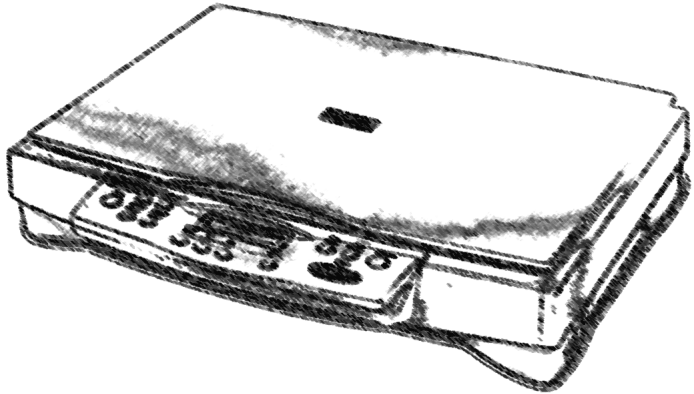
- When the BuzzBox lights or buzzes, check the printer message window to find out what has interrupted printing. See chapter 5, "Troubleshooting Printer Problems," in the *Operations* manual for a list of printer messages and how to respond to them.

## **QMS SC-100**

You can expand your QMS 3260/4032 Print System by adding the QMS SC-100 digital copier. The copier option can be connected to the standard parallel port on your printer. Check the documentation included with your SC-100 digital copier for instructions on setup, configuration, and operation of the copier option.

Included with the QMS SC-100 digital copier:

- Software CD-ROM
- Parallel cable
- Power adapter
- Documentation





# 3

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## **Memory, TOD Clock, and System Software**

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### **In This Chapter . . .**

- “Introduction” on page 3-2
  - “Anti-Static Protection” on page 3-2
  - “Single In-Line Memory Modules” on page 3-2
  - “Time-of-Day (TOD) Clock” on page 3-5
  - “Updating System Software” on page 3-8
-

# Introduction

This chapter provides details on how to install memory SIMMs, time-of-day (TOD) clock, and how to update system software.

## Anti-Static Protection

- ▲ **Caution:** *It's very important to protect the printer controller board and any associated daughterboard or module from electrostatic damage while performing any task involving the controller board.*

*If an anti-static wrist strap is provided in your printer option kit, attach one end of it to your wrist and the other end to any convenient electrical ground (for example, the bare metal chassis of equipment, as on the back of a computer). Never attach the wrist strap to any piece of equipment with an electrical current present. Turn off all power switches first. Plastic, rubber, wood, painted metal surfaces, and telephones are not acceptable grounding points.*

*If you don't have an anti-static wrist strap, discharge your body's static electric charge by touching a grounded surface before you handle any printer boards or components and before removing the controller board. Also avoid walking around after grounding yourself.*

## Single In-Line Memory Modules

Single in-line memory modules (or SIMMs) are compact circuit boards with surface-mount memory chips. They are used for the printer's read/write or RAM memory.

Your QMS 3260/4032 Print System includes the following printer memory:

- QMS 3260/4032 Print System —16 MB RAM
- QMS 3260/4032 EX Print System—32 MB RAM
- QMS 3260/4032 ImageServer Print System—32 MB RAM

However, you can upgrade either of these models to a maximum of 384 MB of RAM through the installation of additional SIMMs.

Additional memory allows you to download more fonts and increase the printer's buffer (area where data sent from the computer is stored while waiting to be printed).

- ▲ **Caution:** *You may also need additional memory to print on some media sizes at resolutions above 600x600 dpi. Refer to chapter 3, "Advanced Printing Features," in the Operation manual for details.*

## **Installation Procedure**



- ▲ **Caution:** *It's very important to protect the printer controller board and SIMM from electrostatic damage. Before performing this procedure, review the anti-static caution in "Anti-Static Protection" on page 3-2.*

*Always handle circuit boards by the edges only.*

- 1 **In case you need to restore any memory settings after the SIMM installation, print an advanced status page.**
  - » **Note:** *Installing SIMMs automatically resets memory defaults. If your memory settings are specific to your environment, print an advanced status page before installing SIMMs, so you can recover the current memory settings.*
- 2 **Turn off the printer, and then disconnect the power cord and all interface cables from the printer.**
- 3 **Remove the printer's controller board.**

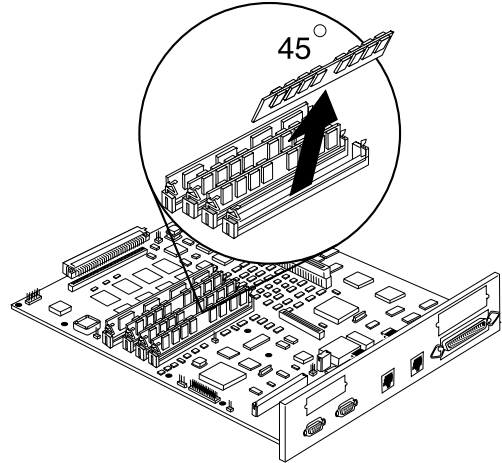
Loosen two screws, one on each end of the I/O connector panel, and, using the tab on the connector panel, pull the controller board from the printer.
- 4 **Position the controller board on a flat surface so the controller board lies flat and the I/O connector panel is facing you.**

## Single In-Line Memory Modules

- 5 If you need to remove a SIMM before installing one, remove it as follows; otherwise go to step 6.

» **Note:** If all the SIMM connectors are filled and you want to install more memory, you have to exchange one or more SIMMs for SIMMs with a greater memory capacity.

- a Using your thumbs, pull the latches (one on each side of the SIMM connector) outward.
- b Tilt the SIMM backwards to a 45° angle away from the SIMM connector.
- c Lift the SIMM out.

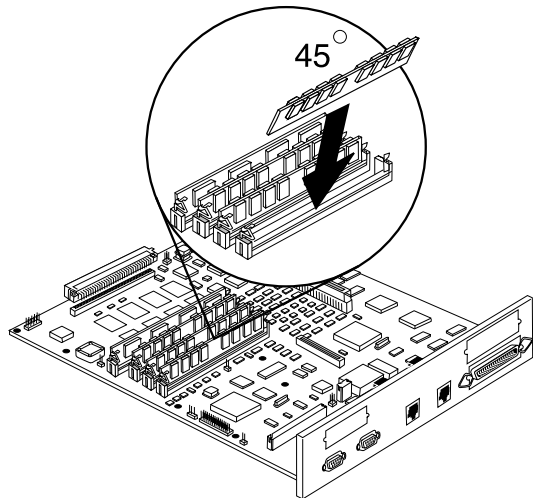


- 6 Remove the new SIMM from its anti-static bag.

- 7 Insert the new SIMM into the SIMM connector.

- a Hold the SIMM at a 45° angle to the controller board, with the notch on the right side and the bottom edge in the connector.

» **Note:** You can insert a SIMM in any SIMM connector as long as DRAM0 and the SIMM connector before the one you're installing are occupied.



- b Tilt the SIMM up to a 90° angle until you feel it snap into place.

When seated, the SIMM stands upright, firmly in place. If you cannot snap the SIMM into place, do not force it. Reposition it, making sure that the bottom of the SIMM is seated completely in the connector.

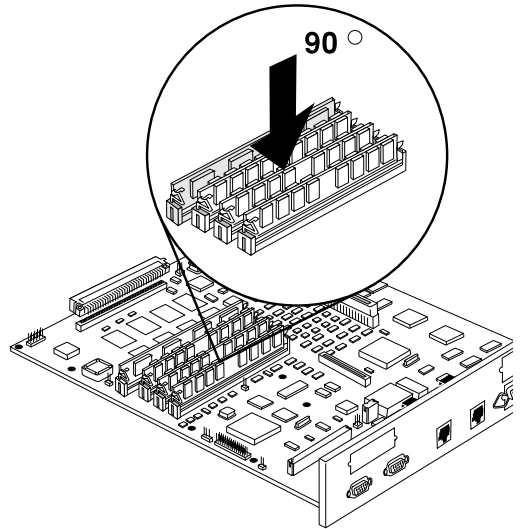
- 8 Repeat steps 6–7 for each additional SIMM being installing.**
- 9 Reinstall the controller board into the printer.**

Gently slide the controller board into the printer until it is fully seated, and then tighten the two screws.

- 10 Reconnect all interface cables.**
- 11 Reconnect the power cord, and turn on the printer.**
- 12 Print a start-up page.**

Check that the start-up page states the total size of the RAM installed in your printer.

- 13 If necessary, refer to the advanced status page you printed in step 1 to reconfigure printer memory.**



## **Time-of-Day (TOD) Clock**

The time-of-day clock provides time and date information on the startup page and in the accounting data.

### **What's in the Kit?**

The optional time-of-day clock kit includes only the following:

- Time-of-day clock

## **Installation Procedure**

- ◆ **Caution:** *It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution in "Anti-Static Protection" on page 3-2. In addition, always handle circuit boards by the edges only.*

- 1 **Turn off the printer, and then disconnect the power cord and all interface cables from the printer.**
- 2 **Loosen two screws (one on each end of the interface panel) and, using the tab on the panel, pull the controller board from the printer.**
- 3 **Attach the time-of-day clock to the controller board.**



---

**WARNING:** *Because the time-of-day clock includes an internal battery, there is a danger of explosion if the clock is incorrectly installed or replaced. Replace it only with a similar QMS time-of-day clock. Dispose of any used time-of-day clock in accordance with local laws and regulations.*

**ACHTUNG!** Da der Uhrenbaustein eine interne Batterie enthält, besteht Explosionsgefahr, falls dieser falsch eingesetzt oder ersetzt wird. Er darf nur durch einen Baustein gleichen Typs ersetzt werden. Bitte entsorgen Sie den Baustein gemäß den geltenden Entsorgungsbestimmungen.

**AVERTISSEMENT!** Dû au fait que l'horloge interne de l'imprimante est munie d'une batterie interne, il y a un risque d'explosion si celle-ci est mal installée ou remplacée. La remplacer seulement avec une horloge similaire à l'horloge interne QMS. Se départir de toute horloge interne défectueuse en respectant les lois et réglementations en vigueur.

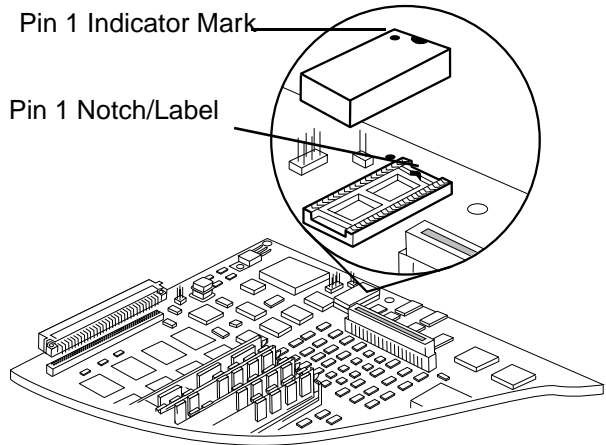
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## Time-of-Day (TOD) Clock

- a Locate the time-of-day clock socket on the controller board and the pin 1 notch or printed label.

- b Locate the pin 1 indicator mark on the top of the time-of-day clock.

This mark may be a notch or a slight depression on one end of the clock.



- c Align this indicator mark with the pin 1 notch or printed label on the controller board.
- d Gently press down on the time-of-day clock until it's firmly seated.



**Caution:** Make sure that the pins on the time-of-day clock are properly aligned with those in the receiving socket on the controller board. Damage to the time-of-day clock and/or controller board could result if the pins are misaligned.

### 4 Reinstall the controller board.

Gently slide the controller board into the printer until it is fully seated, and then tighten the two screws.

### 5 Reconnect all interface cables.

### 6 Reconnect the power cord and turn on the printer.

### 7 Print a startup page.

Check that the time-of-day clock is listed under “options” on the startup page.

# Updating System Software

The system software in your QMS 3260/4032 Print System is stored in flash ROM, read-only memory that can be erased and rewritten to “in a flash.” Updated system software allows you to take advantage of future enhancements to the printer.

Updating the system software can be a real advantage for keeping your printer at the level of the latest release. As your printer ages QMS will periodically add enhancements to the system software to correct problems detected by our customers. Reloading the system software can also be a method of troubleshooting your printer when it has stopped working. See “Troubleshooting Printer Problems,” in the *Operations* manual for information on downloading system software to a non-working printer.

Contact QMS or your QMS vendor for information on obtaining new system software. See appendix A, “QMS Customer Support,” for locations and telephone numbers.

## Minimum Requirements

Downloading via...	Host hard disk space required	Notes
Parallel	1.5 MB	Recommended method for downloading from a non-networked computer.  No additional cables or changes of port settings required.
Serial	1.5 MB	For use when the parallel method is unavailable.  Requires either a null modem cable or a standard serial cable with a null modem adaptor attached.
Ethernet	1.5 MB	Requires a 10BaseT/100BaseTX connection to the printer's resident network interface or a connection to the optional network interface.

## Procedure Overview

Depending on the media that your new system software is delivered to you, the procedure for sending the system software to the printer is basically the same as printing a document. You can download the system software from the QMS website after con-



tacting our Customer Response Center, or the system software can be shipped to you on CD-ROM or diskettes. If you get diskettes use the following procedure to unzip the system software on the diskettes using a PC.

Make sure that you have a copy of the advanced status page from your printer so that you can restore settings after updating the system software.

### Decompressing the System Software from Diskettes

- » **Note:** *It is not necessary to decompress the system software if you downloaded it from the QMS website or received it on CD-ROM.*

**1 Switch to the MS-DOS prompt.**

**2 Create a new directory on your PC. Type**

```
X:\mkdir newdir.␣
```

where *newdir* refers to the name of the new directory where your system software will be stored and *X:* is the hard drive designation.

**3 Change to this directory. Type**

```
X:\cd newdir
```

**4 Insert the printer system software disk in your PC's 3.5" disk drive.**

**5 Type**

```
X:\pkunzip x:\system.␣
```

where *X* is the name of the disk drive in which you inserted the system software disk.

**6 Follow the prompts.**

They instruct you to insert the system software disks in the following order:

- a Last disk (system software disk 3)
- b Disk 1 (system software disk 1)
- c Disk 2 (system software disk 2)
- d Disk 3 (system software disk 3)

## Procedure—PC Users—Parallel, Serial, or Ethernet

### Downloading the System Software—Parallel

- 1 Send the new system image to the printer.

- Type

```
copy /b filename.ps lpt#␣
```

where *filename* refers to the name of the system software file (systemdl.ps is a typical name) and # is the number of the parallel port (/b refers to binary files.)

- 2 While the system software is loading, the Online LED blinks off and on, and the message window displays

```
Downloading image  
via parallel port.
```

- 3 After the new system software has been written to ROM, the printer returns to IDLE.

» **Note:** *The new system image doesn't erase the old image until the printer verifies that the new image is valid.*

- 4 Restart the printer to activate the new system software.
- 5 Print another advanced status page, and verify that the configuration settings are the same.

### Downloading the System Software—Serial

- 1 Connect the serial cable to the printer.
- 2 Set the PC's baud rate to 38400 by typing

```
mode com # 38400 n 8 ␣
```

(where # is the serial communications port 1 to 4).

- 3 Access the Administration/Communication/Serial menu on your printer, set the Hardware Flow Control RTS and CTS values to On, the baud rate to 38400, press the Online or Menu key, and then select yes to Save Changes.
- 4 Type

```
copy /b filename.ps com#␣
```

where *filename* refers to the name of the system software file (systemdl.ps is a typical name) and # is the number of the serial port on the PC (/b refers to binary files.)

The Downloading process takes about 15 minutes depending on the size of the file and the speed of your computer. The Ready LED blinks as the new system image is copied to the printer.

**5 While the system software is loading, the Online LED blinks off and on, and the message window displays**

Downloading image  
via serial port.

**6 After the new system software has been written to ROM, the printer returns to IDLE.**

» **Note:** *The new system image doesn't erase the old image until the printer verifies that the new image is valid.*

**7 Restart the printer to activate the new system software.**

**8 Print another advanced status page, and verify that the configuration settings are the same.**

**Downloading the System Software—Ethernet**

**1 Open an ftp session at your PC or workstation by typing one of the following commands:**

ftp *printername*↓ (for example, ftp pctdev6↓)  
ftp *ipaddress*↓ (for example, ftp 161.33.130.45↓)

**2 When prompted for a user name and password, press Enter.**

An ftp> prompt displays.

**3 At the ftp> prompt, change to binary mode by typing**

bin↓

**4 At the ftp> prompt, send the system software file to the printer's hard disk by typing**

put *filename.ps*↓

where *filename* refers to the name of the system software file (systemdl.ps is a typical name).

- 5 While the system software is loading, the Online LED blinks off and on, and the message window displays

Downloading image

- 6 At the `ftp>` prompt, end the ftp session by typing

`quit`↵

- 7 When the Online LED stops flashing and the printer's message window reads `Idle` for at least 30 seconds, turn the printer off and then on again.
- 8 Restart the printer to activate the new system software.
- 9 Print another advanced status page, and verify that the configuration settings are the same.

» **Note:** *The system software can also be downloaded using CrownAdmin software utilities if you have CrownAdmin installed and you are familiar with it.*

## Procedure—Macintosh Users

### Downloading the System Software—Ethernet

- 1 Start CrownAdmin Software Utilities on you Macintosh.

» **Note:** *If you don't have CrownAdmin installed use the QMS Software Utilities CD-ROM to install it.*

- 2 Select the printer from the printer list area.
- 3 From the File menu, select Print.
- 4 In the Print File window, select Browse.
- 5 Select the new system software file where it is stored (on CD-ROM or on your hard disk.)
- 6 Click Print.
- 7 When the Online LED stops flashing and the printer's message window reads `Idle` for at least 30 seconds, turn the printer off and then on again.
- 8 Restart the printer to activate the new system software.
- 9 Print another advanced status page, and verify that the configuration settings are the same.

## **System Download Error Pages**

The following error pages print if downloading the system software was unsuccessful. The possible problems listed may give you an idea as to what went wrong with the download. Each error page lists one of the following two-line messages, the name of the product, and the upgrade system release number.

<b>Error Message</b>	<b>Possible Problem</b>
Unable to replace FLASH image due to insufficient memory!	The system cannot use 16 MB—you need to add more memory.
Unable to reprogram FLASH due to error in image contents!	Error detected in file or it did not understand the file—try to resend.
Unable to reprogram FLASH due to inability to locate imagefile!	Possibly a low memory error—you need to add more memory.
Unable to replace FLASH image due to product incompatibility!	Wrong system code sent—possibly for another QMS printer.





# 4

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## Interfaces and Daughterboards

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### In This Chapter . . .

- “Introduction” on page 4-2
- “Anti-Static Protection” on page 4-2
- “Network and LocalTalk Interfaces” on page 4-2
- “SCSI Interface” on page 4-6

# Introduction

The following options mount on your printer's controller board:

- Network interfaces (CrownNet 10BaseT/100BaseTX, CrownNet Token-Ring, and DECnet-TCP/IP)
- LocalTalk interface
- SCSI interface

## Anti-Static Protection

- ▲ **Caution:** *It's very important to protect the printer controller board and any associated daughterboard or module from electrostatic damage while performing any task involving the controller board.*

*If an anti-static wrist strap is provided in your printer option kit, attach one end of it to your wrist and the other end to any convenient electrical ground (for example, the bare metal chassis of equipment, as on the back of a computer). Never attach the wrist strap to any piece of equipment with an electrical current present. Turn off all power switches first. Plastic, rubber, wood, painted metal surfaces, and telephones are not acceptable grounding points.*

*If you don't have an anti-static wrist strap, discharge your body's static electric charge by touching a grounded surface before you handle any printer boards or components and before removing the controller board. Also avoid walking around after grounding yourself.*

## Network and LocalTalk Interfaces

Your printer supports the following interface cards:

- CrownNet 10BaseT/100BaseTX (TCP/IP, NetWare, EtherTalk, LAN Manager/LAN Server) for an additional CrownNet 10BaseT/100BaseTX connection



- CrownNet Token-Ring (TCP/IP, NetWare, LAN Manager/LAN Server)
- DECnet-TCP/IP
- LocalTalk

You can install one of these interface cards in addition to the three standard interfaces—parallel, serial, and CrownNet 10BaseT/100BaseTX (TCP/IP, NetWare, EtherTalk, LAN Manager/LAN Server). The printer's Simultaneous Interface Operation (SIO) allows all of these interfaces to be active at the same time. In other words, your printer can simultaneously communicate through all four ports with four hosts, either computers or networks.

## **What's in an Interface Kit?**

An optional interface kit includes the following:

- An interface card
- Interface documentation (in hardcopy and/or on CD-ROM)

The kit may also include additional parts not required for network interface installation on this printer.

## **Installation Procedure**

▲ **Caution:** *It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the anti-static caution in "Anti-Static Protection" on page 4-2. In addition, always handle circuit boards by the edges only.*

- 1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.
- 2 Loosen two screws (one on each end of the interface panel) and, using the tab on the side of the panel, pull the controller board from the printer.
- 3 Remove the two screws holding the metal plate over the optional interface opening.

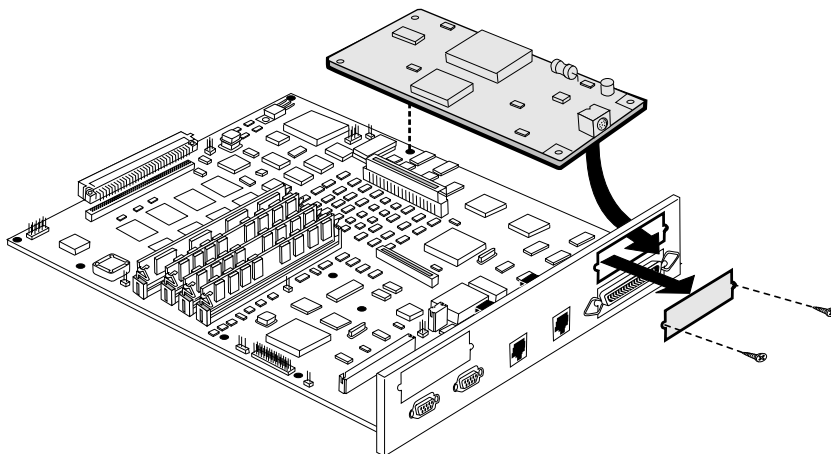
The optional interface opening is labelled "Option." It's located next to the "Parallel" port. Save the two screws. (You'll use them when you install the optional interface card.) You can discard the plate.

**4 Attach the interface card to the controller board.**

- a Position the interface card so that its I/O connector slides into its opening in the interface panel and that its 80-pin connector aligns with the 80-pin connector on the controller board.
- b Gently press the interface card down until its connector is fully seated and the card is secured by the plastic support post(s).



**Caution:** Make sure that the connectors on the interface card and controller board are properly aligned. Damage to the interface card and/or controller board could result if the pins are misaligned.



**5 Secure the interface card to the interface panel with the two screws you removed earlier.**

**6 Reinstall the controller board.**

Gently slide the controller board into the printer until it is fully seated, and then tighten the two screws.

**7 Reconnect all interface cables.**

**8 Reconnect the power cord, and turn on the printer.**

**9 Print a start-up page.**

Check that the start-up page lists the interface just installed under “Options.”

## **Using a Network Interface**

Once a network interface is installed, refer to the following for more information:

- For a CrownNet interface, refer to the QMS *CrownNet Setup Guide* for information on connecting to the network, installing the software, and configuring the interface and the network. In addition, chapter 2, “Printer Configuration,” of QMS *CrownNet System Administrator’s Guide*, provides complete configuration information.
- For a DECnet-TCP/IP interface, refer to the QMS *DECnet-TCP/IP Setup Guide* and the *TCP/IP Protocol Option User’s Guide*.
- Your application and network documentation contain information on printing over the network.

## **Using a LocalTalk Interface**

Once a LocalTalk interface is installed, refer to the following for more information:

- For configuration information, refer to chapter 2, “Printer Configuration,” in the *Reference* manual.
- Your application and Macintosh documentation contain information on printing via LocalTalk.

### **What You Need for the Connection**

Interface cables are not included with your printer. If you’re replacing a printer, you may already have the necessary cables. If not, you’ll need to purchase the cables from your QMS vendor or a local computer store.

To connect your printer to a single Macintosh, you must have

- An optional LocalTalk interface.
- Two PhoneNET-type transformer boxes: one with a DIN-8 connector for the printer port and one with a DIN-8 connector for the Macintosh port
- An RJ11 (telephone) cable
- Two terminating resistors to close the open sockets left in the transformer boxes after the connection is made

If you’re connecting the printer to an AppleTalk network with more than one Macintosh, see your PhoneNET and Macintosh documentation for more information.

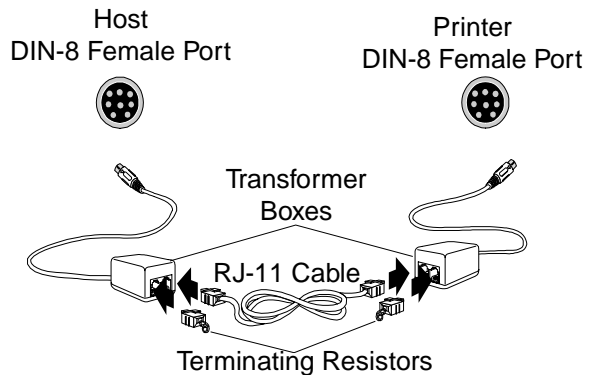
### Making the Connection

- 1 Turn off both the printer and the Macintosh.
- 2 Plug the connector from one transformer box into the printer's optional LocalTalk port (installed in the slot marked "Option").
- 3 Plug the connector from the other transformer box into the Macintosh printer port.
- 4 Connect the two transformer boxes with the telephone cable.
- 5 Put terminating resistors in all open sockets in the connector boxes.

This ensures proper communication and helps speed up transmission.

- 6 Turn on the printer.

A start-up page should print. If it doesn't, refer to chapter 5, "Troubleshooting Printer Problems," of the *Operation* manual.



## SCSI Interface

The optional SCSI interface allows you to connect up to three optional SCSI hard disks or up to two SCSI hard disks or a Jaz or Zip disk. Hard disks provide storage for fonts, emulations, and other files, increase the number of pages that can be collated, and provide a secondary storage area for spooled data, while providing virtual memory capabilities.

### What's in a SCSI Interface Kit?

An optional SCSI interface kit includes the following:

- SCSI interface card

- SCSI interface card ribbon cable
- Connector face plate
- Two larger screws
- Two smaller screws

## Installation Procedure



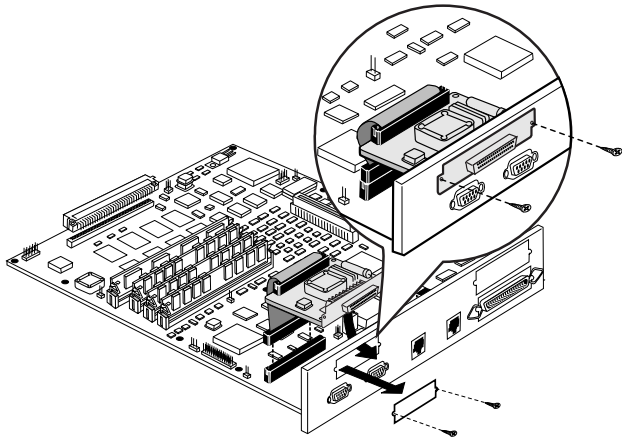
- ▲ **Caution:** *It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the anti-static caution in "Anti-Static Protection" on page 4-2. In addition, always handle circuit boards by the edges only.*

- 1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.
- 2 Loosen two screws (one on each end of the interface panel) and, using the tab on the side of the panel, pull the controller board from the printer.
- 3 Remove the two screws holding the metal plate over the SCSI interface opening.

The SCSI interface opening is labelled "SCSI."

You can discard the metal plate and screws.

- 4 Attach the ribbon cable to its connector on the SCSI interface card.
- 5 Attach the SCSI interface card to the controller board.
  - a Position the SCSI interface card so that its ribbon cable connector aligns with the SCSI connector on the controller board.



- b Gently press the ribbon cable connector down until it's fully seated.



**Caution:** *Make sure that the connectors on the ribbon cable and the controller board are properly aligned. Damage to the controller board could result if the pins are misaligned.*

- c Insert the SCSI interface card connector into its opening in the interface panel.
- d Secure the SCSI interface card to the interface panel with the two larger screws in the kit.

### **6 Reinstall the controller board.**

Gently slide the controller board into the printer until it's fully seated, and then tighten the two screws.

### **7 Reconnect all interface cables.**

### **8 Reconnect the power cord and turn on the printer.**

### **9 Print a start-up page.**

Check that the start-up page lists the interface just installed under "Options."



# 5

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## **Emulations, Fonts, and Other Software**

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### **In This Chapter . . .**

- “Introduction” on page 5-2
- “Emulations” on page 5-3
- “Disk Fonts” on page 5-6
- “PCL 5e Font SIMMs” on page 5-7
- “Kanji Font Internal IDE Hard Disk” on page 5-10
- “QFORM” on page 5-14

# Introduction

Your printer has several software options which expand its capabilities:

- QMS emulations
- QMS ProCollection disk fonts
- QMS ProCollection font SIMM
- QMS Intellifont font SIMM
- QMS Kanji font internal hard disk
- QMS ImageServer
- QMS QFORM

## Anti-Static Protection

- ▲ **Caution:** *It's very important to protect the printer controller board and any associated daughterboard or module from electrostatic damage while performing any task involving the controller board.*

***If an anti-static wrist strap is provided*** in your printer option kit, attach one end of it to your wrist and the other end to any convenient electrical ground (for example, the bare metal chassis of equipment, as on the back of a computer,). Never attach the wrist strap to any piece of equipment with an electrical current present. Turn off all power switches first. Plastic, rubber, wood, painted metal surfaces, and telephones are not acceptable grounding points.

***If you don't have an anti-static wrist strap***, discharge your body's static electric charge by touching a grounded surface before you handle any printer boards or components and before removing the controller board. Also avoid walking around after grounding yourself.



# Emulations

Optional emulations, such as CGM, LN03 Plus, and XES/UDK, are available as PostScript files on floppy disks. This section describes how to download an optional emulation to the printer's hard disk.

- » **Note:** *You must have at least one hard disk, internal or external, attached to the printer in order to use an optional emulation. If more than one hard disk is available, the emulation automatically installs itself on the disk with the most free storage space. QMS recommends that you have at least 4 MB of memory above the base configuration and that you add at least 1 MB memory to each emulation installed. This ensures that the printer can run the emulation without slowing down performance.*

## Downloading an Emulation

### Via a Serial or Parallel Interface

- 1 Turn on the printer, and wait for **IDLE** to appear in the message window.
- 2 Insert the emulation disk in your computer's 3.5" disk drive, and change to that drive (for example, if you're using the A drive, type **a:↵**).
- 3 Send the emulation to the printer's hard disk.

- If your computer and printer are connected through the parallel port, type

```
copy /b *.ps lpt#↵
```

where # is 1 to 3. (/b refers to binary files.)

- If your computer and printer are connected through the serial port, type

```
copy /b *.ps com#↵
```

where # is 1 to 4. (/b refers to binary files.)

- 4 When downloading is complete, reboot the printer.

The emulation should be listed in the Options section of the printer's start-up page, in the Administration/Emulation printer's configuration menu, and on the advanced status page.

### Via an Ethernet Interface

- » **Note:** Before you begin this procedure, your printer and computer (or UNIX workstation) must be connected to an Ethernet network running TCP/IP and have valid IP addresses.

- 1 If your computer is running Windows, change to DOS.
- 2 Insert the emulation disk in your computer's 3.5" disk drive, and change to that drive (for example, if you're using the A drive, type `a:↵`).
- 3 If you want to download the emulation from a UNIX workstation, copy the installation file from your computer to a temporary directory on your workstation.
- 4 Turn on the printer, and wait for `IDLE` to appear in the message window.
- 5 Open an ftp session at your computer or workstation by typing one of the following commands:

```
ftp printername↵ (for example, ftp pctdev6↵)
ftp ipaddress↵   (for example, ftp 161.33.130.45↵)
```

- 6 When prompted for a user name and password, press Enter.

An `ftp>` prompt displays.

- 7 At the `ftp>` prompt, change to binary mode by typing

```
bin↵
```

- 8 At the `ftp>` prompt, send the emulation file to the printer's hard disk by typing

```
put filename.ps↵
```

where *filename* is the name of the installation file.

The printer's message window reads `1 Active Job`, and the Disk light flashes to indicate that the emulation is being downloaded to the hard disk. The `ftp>` prompt returns when the emulation has finished loading.

- 9 At the `ftp>` prompt, end the ftp session by typing

```
quit↵
```

- 10 When the Disk light stops flashing and the printer's message window reads `Idle` for at least 30 seconds, turn the printer off and then on again.

### 11 When the printer's message window reads `Idle` again, the emulation is ready to use.

The emulation should be listed in the Options section of the printer's start-up page, in the Administration/Emulation printer's configuration menu, and on the advanced status page.

- » **Note:** *You may want to erase any installation files left on your computer (and/or workstation), and then remove any temporary directories.*

## Using an Optional Emulation

Refer to the documentation that came with your emulation for configuration and usage instructions.

# Disk Fonts

Optional fonts, such as the 65 ProCollection fonts for the HP emulations on your printer and other special PostScript fonts, are available as PostScript files on floppy disks. This section describes how to download optional fonts from a floppy disk to the printer's hard disk.

- » **Note:** *At least one hard disk (internal or external) must be present on your printer before you can download a font. If more than one hard disk is available, the font automatically installs itself on the disk with the most free storage space.*

## Downloading Disk Fonts

This procedure contains the instructions for downloading the fonts from a floppy disk onto your printer's hard disk.

- 1 **Connect the computer to the printer's parallel or serial port.**
- 2 **Turn on the printer, and wait for IDLE to appear in the message window.**
- 3 **Insert the font disk in your computer's 3.5" disk drive, and change to that drive (for example, if you're using the A drive, type a:↵).**
- 4 **Send the fonts to the printer's hard disk.**
  - If your computer and printer are connected through the parallel port, type  

```
copy /b *.ps lpt#↵
```

where # is 1 to 3. (/b refers to binary files.)
  - If your computer and printer are connected through the serial port, type  

```
copy /b *.ps com#↵
```

where # is 1 to 4. (/b refers to binary files.)
- 5 **When the downloading is complete, reboot the printer.**

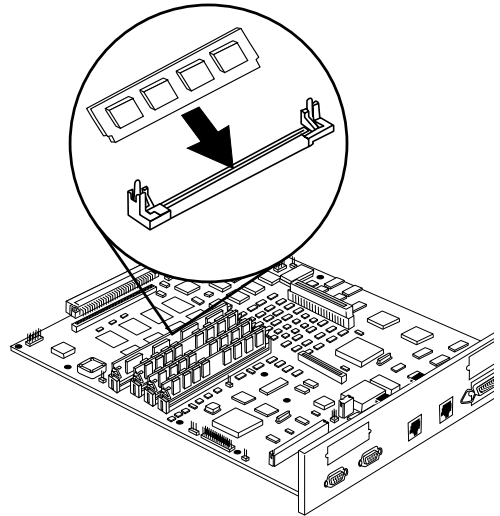
# PCL 5e Font SIMMs

The QMS 3260/4032 supports these PCL 5e font SIMMs: the QMS ProCollection font SIMM and the QMS Intellifont font SIMM. The QMS ProCollection SIMM contains 65 fonts. The QMS Intellifont SIMM contains 17 fonts.

## Installing a PCL 5e Font SIMM

- ▲ **Caution:** *It's very important to protect the printer controller board and SIMM from electrostatic damage. Before performing this procedure, review the anti-static caution in "Anti-Static Protection" on page 5-2. In addition, always handle circuit boards by the edges only.*

- 1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.



- 2 Loosen two screws (one on each end of the interface panel) and, using the tab on the lower side of the panel, pull the controller board from the printer.

- 3 Position the controller board on a flat surface so the controller board lies flat and the interface panel is facing you.

- 4 Remove the font SIMM from the anti-static bag.

- 5 Insert the font SIMM into the font SIMM connector.

Hold the SIMM at a 45° angle to the controller board, with the notch on the right side and the bottom edge in the connector.

- 6 Tilt the SIMM up toward you to a 90° angle until you feel it snap into place.

When properly seated, the SIMM sits upright, firmly in place.

▲ **Caution:** *If you can't snap the SIMM into place, don't force it. Reposition it, making sure that the bottom of the SIMM is seated completely in the connector.*

- 7 Reinstall the controller board.

Gently slide the controller board into the printer until it's fully seated, and then tighten the two screws.

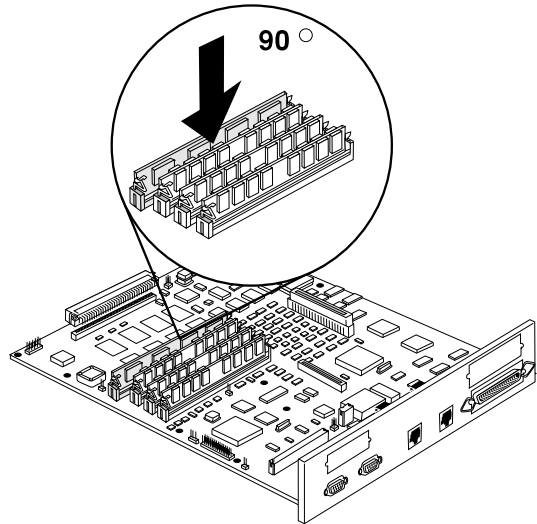
- 8 Reconnect all interface cables.

- 9 Reconnect the power cord and turn on the printer.

- 10 Print a start-up page.

Check that the start-up page indicates the font SIMM just installed under "Options." It's identified as `cartridge2%`.

- 11 Print an advanced status page.



- a Using the Administration/Special Pages/Status Page Type menu, change the status page type to Advanced.
- b Using the Administration/Special Pages/Print Status menu, print the status page.

The list of HP PCL fonts includes all of the new fonts. Keep this status page for reference when accessing these fonts.

**12 Ensure that the Administration/Memory/Disk Cache memory client is set to at least 20 KB.**

## Accessing the Fonts

After you install the font SIMM and configure the printer, you're ready to access the fonts. Most applications handle font selection for you. To access the fonts through your application, you must use an application containing a compatible driver (for example, ProCollection uses an HP driver). The driver lists each font by name or refers to the fonts as a group.

### Using Your PCL Application

Use your PCL application to set the font for a single document. See your application documentation for information.

### Using the Printer Configuration Menu

Use the printer configuration menu to set the default font for all PCL documents.

» **Note:** *Before beginning this procedure, you must have a PCL 5e font list from the advanced status page you printed earlier in this section.*

- 1 Access the Administration/PCL5e/Default Font menu.**
- 2 Choose the Select by Index option.**
- 3 Access the Administration/PCL5e/Default Font Idx menu.**
- 4 Identify the appropriate font selection index.**

The font selection indexes are listed in the PCL 5e font list on the advanced status page.

- 5 Save your changes and put the printer back on line.**

# Kanji Font Internal IDE Hard Disk

The preformatted QMS Kanji font internal IDE hard disk contains Kanji fonts and other files. These fonts can be printed at a variety of point sizes and in different styles and resolutions.

After the Kanji hard disk is installed in your QMS 3260/4032, the Kanji fonts are available for use just as if they were resident in the printer.

## What's in the Kit?

- Internal IDE hard disk preformatted with the following 6 Kanji fonts:

This font...	Is licensed to QMS by...
Gothic BBB-Medium Ryumin Light-KL	Morisawa and Company, Ltd.
Gothic Bold Gothic Heavy Mincho Medium Mincho Heavy	Type Bank

- IDE hard disk with ribbon cable attached
- IDE hard disk bracket
- 3 screws

If anything is missing, call your QMS vendor. See appendix A, "QMS Customer Support," for locations and telephone numbers.

## Hardware Requirements

- A Macintosh, IBM computer, or compatible computer



## **Software Requirements**

- An application (such as a word processing or desktop publish package) that supports both the Kanji fonts and PostScript printing.
- If you're using a Macintosh, the following Macintosh system software:
  - KanjiTalk, version J1-6.0.7 or later
  - System File, version J1-6.0.7 or later
  - Laser Prep, version J1-6.0.1 or later
  - LaserWriter, version J1-6.0.2 or later
  - Print Monitor, version J1-1.3 or later
  - MultiFinder, version J1-6.1.7 or later
- If you're using a computer, the following system software:
  - If you're using Windows, version 3.1J or later
  - If you're using DOS, version 5.0J or later

## **Installing a Kanji Font Internal IDE Hard Disk**

- ▲ **Caution:** *The Kanji fonts are factory installed on a formatted hard disk drive. DO NOT reformat or initialize the QMS Kanji internal hard disk. Reformatting erases all data, fonts, and files on the disk. **Your warranty does not cover this error.***

The Kanji font internal IDE hard disk is installed on the controller board in the same way any internal hard disk is installed. See "Internal Hard Disks," in chapter 6, for detailed steps on installing an internal hard disk.

- » **Note:** *If you already have an internal hard disk installed, you must remove it before you can install the Kanji disk.*

## **Configuring the Printer for Kanji**

See chapter 6, "Storage Devices," for information on how to configuration your printer's memory when using an internal hard disk.

## **Accessing the Kanji Fonts**

After you install the Kanji font internal IDE hard disk and configure the printer, you're ready to access the Kanji fonts. Use this information for accessing the Kanji fonts on the Kanji font internal IDE hard disk.

### **Macintosh**

If you're using a Macintosh, you need to install the bitmapped screen fonts and the Kanji APD and PPD files. The bitmapped screen fonts display an image of how a printed typeface looks, and they also provide metric information used by the application to determine which outline font to use when formatting text.

- » **Note:** *Make sure that the bitmapped screen fonts are copied only to the KanjiTalk System Folder. If bitmapped fonts are installed in another folder, they will not appear in your application.*

- 1 Insert the bitmapped screen fonts disk into the Macintosh computer's disk drive.**

- 2 If you're using System 6, install the fonts using normal Macintosh procedures for Font/DA Mover.**

**If you're using System 7, select the fonts from the floppy disk and drag the fonts to the Fonts folder in the System folder.**

- 3 Restart your Macintosh.**

### **Adding the Printer Description File**

Most Macintosh applications obtain font information from the printer. But applications such as Adobe Separator, QuarkXPress, and Aldus PageMaker, refer to the font list of the PPD file for font information.

- 1 Replace the APD and PPD files you installed when you purchased your QMS printer.**

Follow the instructions in your application documentation or in your printer user's guide "Printer Description Files" section. The APD and PPD files that you need to use are on the QMS PS Executive Series Utilities disk (Japanese version) that comes with the Kanji option kit.

### **Downloading the JFontPrep File**

When downloading Adobe Type Library or Morisawa Type Library Kanji fonts, you need to also download the JFontPrep file.

- » **Note:** *This file is on the QMS PS Executive Series Utilities disk (Japanese version) included in this option kit. You must download this file before you download any Kanji fonts to your print system.*

**1 Open PS Exec.**

**2 From the File menu, choose Download PS File.**

**3 Choose JFontPrep, choose Send, and then download to the printer.**

- » **Note:** *The JFontPrep PostScript file is automatically downloaded to RAM. The Japanese PostScript fonts are downloaded to disk.*

**4 When the Status window is gone, close PS Exec.**

**5 Download the font(s).**

See the *Adobe Type Library User's Guide* for instructions on downloading fonts.

- ▲ **Caution:** *Do not select Clear Font Cache in the Disk menu even though the Adobe/Morisawa Type Library User's Guide states that you should select this option. It could cause your printer to lock up.*

**6 After downloading the fonts, if necessary, reset Emulation Level to its initial value.**

**7 Turn the printer off and then back on again.**

## **Windows**

**1 Install the QMS Windows driver using the instructions given in the README.TXT file on the Windows Drivers disk.**

## **DOS**

To run a Japanese application in the DOS environment, you need MS-DOS/V 5.0J. Most major Japanese word processing applications are available for the DOS/V environment.

- » **Note:** *Not all Japanese applications for the DOS/V environment support PostScript printing.*

# **QFORM**

The QMS QFORM option allows you to use existing lineprinter and forms printing applications on your QMS 3260/4032 Print System. This printer resident application gives you the ability to store PostScript forms on the printer's hard disk and fill those forms with your application's ASCII print stream. Features include

- Definition of page formatting and fonts
- Duplexing with binding-margin offsets
- Two-sided forms with text fill-in on front and/or back
- "Greenbar" listing formats
- Automatic page numbering
- ANSI carriage-control recognition
- Single- and multi-part forms
- Labels and multipart forms
- Logos and watermarks

Refer to the documentation that comes in the QFORM kit for installation and usage instructions.



# 6

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## Storage Devices

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### In This Chapter . . .

- “Introduction” on page 6-2
  - “Anti-Static Protection” on page 6-2
  - “Identifying Storage Devices” on page 6-3
  - “Internal Hard Disks” on page 6-4
  - “External Storage Devices” on page 6-6
  - “Formatting a Storage Device” on page 6-8
  - “Configuring a Storage Device” on page 6-9
  - “Backing Up Data to a Jaz or Zip Drive” on page 6-10
  - “Restoring Data from a Jaz or Zip Drive” on page 6-12
-

# Introduction

Hard disks, Jaz drives, and Zip drives provide storage for character bitmaps, downloaded outline fonts, and other files. Hard disks also provide virtual memory.

This chapter provides information on installing and using internal and external hard disks as well as Iomega Jaz and Zip drives.

## Anti-Static Protection

- ▲ **Caution:** *It's very important to protect the printer controller board and any associated daughterboard or module from electrostatic damage while performing any task involving the controller board.*

***If an anti-static wrist strap is provided*** in your printer option kit, attach one end of it to your wrist and the other end to any convenient electrical ground (for example, the bare metal chassis of equipment, as on the back of a computer). Never attach the wrist strap to any piece of equipment with an electrical current present. Turn off all power switches first. Plastic, rubber, wood, painted metal surfaces, and telephones are not acceptable grounding points.

***If you don't have an anti-static wrist strap***, discharge your body's static electric charge by touching a grounded surface before you handle any printer boards or components and before removing the controller board. Also avoid walking around after grounding yourself.

# Identifying Storage Devices

Hard disks, Jaz drives, and Zip drives are identified by their device numbers. If the printer has an internal hard disk, it has a device number of DSK7. If optional external hard disks and/or drives are attached, their device numbers can be DSK0–DSK6. Device numbers of external hard disks and drives can be set by the installer.

- » **Note:** *If an internal hard disk is removed or an external hard disk or drive is not turned on, the printer does not reset non-volatile RAM to the factory defaults.*
- ▲ **Caution:** *If you connect to this printer an external hard disk you previously used with an earlier QMS Crown printer (such as a QMS 2060, 2425, 4060, magicolor 2, or magicolor 330), this QMS 3260/4032 Print System software release will automatically reorganize the files on the hard disk when the printer is turned back on again. (The printer release number is listed on both the start-up and the status page.) Once this reorganization is done, the files on the hard disk can no longer be accessed if the hard disk is reattached to an earlier QMS Crown printer.*

*This reorganization process takes time. If, when you first turn the printer on after attaching a previously used hard disk, it does not come on line immediately, be patient. Interrupting the reorganization process could cause all files on the hard disk to be lost.*

# Internal Hard Disks

Only one internal IDE hard disk is supported. However, you can add up to three external SCSI hard disks, Jaz drives, and/or Zip drives to the printer.

## Installing an Internal Hard Disk

### What's in the Kit?

The IDE hard disk kit includes the following:

- IDE hard disk with ribbon cable attached
- IDE hard disk bracket
- 3 screws

### Installation Procedure

- ▲ **Caution:** *It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the anti-static caution in "Anti-Static Protection" on page 6-2. In addition, always handle circuit boards by the edges only.*

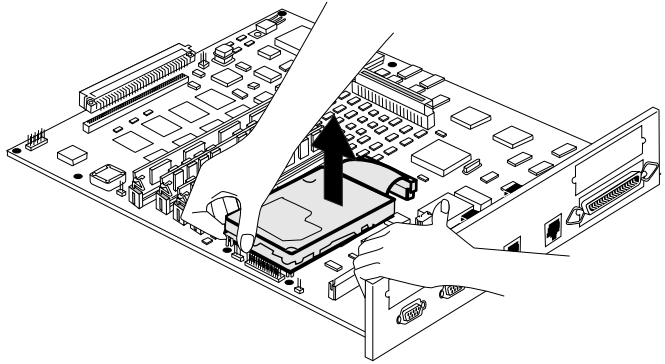
*When installing or removing a hard disk, ensure that the metal support posts (on the hard disk) don't hit any of the electrical leads on the chips mounted on the controller board. The controller board will not function if any of the leads are broken or shorted together.*

- 1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.
- 2 Loosen two screws (one on each end of the interface panel) and, using the tab on the side of the panel, pull the controller board from the printer.
- 3 Position the controller board on a flat surface so the controller board lies flat and the interface panel is facing you.



- 4 If you need to remove a hard disk before installing one, remove it as follows; otherwise skip to step 5.**

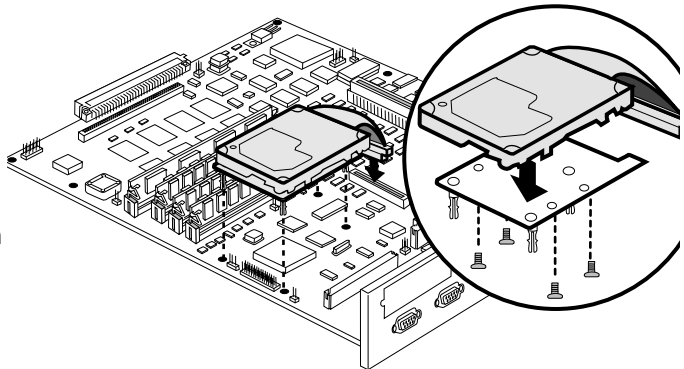
- a Place your left hand on the metal interface plate, the thumb on your right hand on top of the hard disk, and the other fingers on your right hand underneath the corner of the hard disk, and then pull up gently but firmly on the hard disk. The disk is firmly seated, so it may take several tries to remove it.
- b Unplug the ribbon cable connector from its mating connector on the controller board.



▲ **Caution:** *Don't push or pull with the ribbon cable. Use the cable connector.*

- 5 Attach the IDE hard disk to the hard disk bracket.**

Attach the IDE hard disk to the bracket with the grooved-end of the bracket facing the ribbon cable. The screw holes in the bottom of the hard disk should match up with the holes on the hard disk bracket. Fasten the hard disk to the bracket with the screws provided.



- 6 Position the hard disk so that the four support posts face the controller board, the colored stripe on the ribbon cable faces away from you, and the connector is down.**

**7 Insert ribbon cable connector pin 1 (the colored stripe side of the cable) in hard disk connector pin 1.**

▲ **Caution:** *Make sure that the ribbon cable connector and the controller board connector pins are properly aligned. Damage to the controller board could result if the pins are misaligned.*

**8 Press down gently but firmly on the cable connector until it is fully seated.**

▲ **Caution:** *Do not push or pull with the ribbon cable. Use the cable connector.*

**9 Align the support posts with the holes on the controller board, and then press down to secure the hard disk to the controller board.**

So that you don't stress the board, press one corner at a time to secure the hard disk to the controller board.

**10 Reconnect all interface cables.**

**11 Reconnect the power cord and turn on the printer.**

**12 Print a start-up page.**

Check that the start-up page indicates the presence of the hard disk.

## **External Storage Devices**

» **Note:** *You must have an optional SCSI interface board installed before you can attach an external SCSI hard disk, Jaz drive, or Zip drive. Refer to the installation instructions in chapter 3, "Interfaces and Daughterboards."*

### **Attaching an External Storage Device**

For information on attaching an external SCSI hard disk, an Iomega Jaz drive, or an Iomega Zip drive, see the documentation that comes with the device.

See FAQ 7181 for a list of each QMS-approved hard disk, its manufacturers and part numbers, and the QMS products on which it can be used. You can access QMS FAQs through the Internet at <http://www.qms.com/support/supportbase/> or through Q-FAX

(see appendix A, “QMS Customer Support,” to find out how to access Q-FAX documents).

- » **Note:** *FAQ numbers may be subject to change, so you may want to obtain a directory of Q-FAX documents before requesting a specific document.*

## **Turning on an External Storage Device**

For the printer to recognize one or more external storage devices, each device must be turned on before you turn on the printer. If the printer recognizes the device(s) and the start-up page is enabled, check to ensure that `DISK ONLINE` prints on that page. If the start-up page is not enabled, print a status page and check to see if `DISK ONLINE` prints on that page.

If `DISK ONLINE` does not print, see chapter 5, “Troubleshooting Printer Problems,” of the *Operation* manual for more information.

Properly installed devices also appear in the “Options” section of the start-up page (if it's enabled) and on the status page as `%%diskx%`. (*x* is a 7 for an internal IDE hard disk and 0-6 for any external SCSI hard disks or drives, depending on the SCSI ID set on the back of the device.)

## **Using Jaz and Zip Drives**

Keep the following in mind when using Jaz and Zip drives:

- Data can be backed up only to Jaz and Zip drives, not to external SCSI hard disks.
- Jaz and Zip drive information shows up on the start-up and status page only if media is present in the drive.
- If a Jaz or Zip drive is attached to the printer but no media is present, you will experience a long delay (30 seconds or more) when you take the printer off line and put it back on line.
- Jaz and Zip drives cannot be used for disk swapping or accounting. They can be used only for font and file storage and for data backup and restoration.

# Formatting a Storage Device

Access the Administration/Disk Operations menu, and then press the control panel keys in the order shown in the following table. The printer responds by displaying a status message in the message window (DSK refers to the device, and # is the device number).

- » **Note:** *You may need to press the Next key one or more times to advance through the list of selections or options.*

Press this key...	to...	and the message window reads...
Select	Access the Disk Operations/Format Disk menu	FORMAT DISK
Select	Access the Format Disk/Dsk#: menu.	DSK#:
Next or Previous	Advance through the list of attached devices.	DSK#:
Select	Select the device and display a format confirmation message.	ARE YOU SURE?
Select	Begin the formatting process. While the system reboots, the device is being formatted.	FORMATTING...
	Notify you when the formatting process is complete. The printer then powers up, and a start-up page prints (if enabled).	FORMAT COMPLETE

## **Error Messages**

The following error messages may appear while you are using the Disk Operations menu:

<b>Message</b>	<b>Meaning</b>	<b>Action</b>
FORMAT FAILED	The device cannot be used.	Press the Menu key to remove the message, and contact your QMS vendor.
WRITE ERROR	The device encountered a write error, or there is no room for the data on the device or in RAM.	Press the Menu key to remove the message, and restart the operation from the beginning.

# **Configuring a Storage Device**

- » **Note:** *While you're making changes in the configuration menu, you may also want to turn on the printer's page recovery option. (Choose On in the Administration/Engine/Page Recovery menu.) Page recovery allows the printer to automatically track and reprint jammed pages so you don't have to resend jobs after clearing a jam.*

## **External Storage Devices**

- 1 Use the Administration/Memory/Disk Cache menu to increase the disk cache size to 256 KB.
- 2 Turn the printer off and then on again.
- 3 Print a status page to check that the Disk Cache size is increased. (Notice that VM remaining memory is also increased.)

## **Internal Hard Disks**

- 1 Use the Administration/Memory/Enable Disk Swap menu to enable disk swapping.

**Backing Up Data to a  
Jaz or Zip Drive**

Disk swapping takes full advantage of the disk by allowing the printer to use the hard disk to supplement RAM when necessary.

- 2 Turn the printer off and then on again to make this change take effect.**

**Backing Up Data to a Jaz or Zip Drive**

- » **Note:** *You cannot back up data to an internal or external hard disk.*

Attach the Jaz or Zip drive to which you'll be backing up data to the printer's SCSI port or SCSI chain. Then access the Administration/Disk Operations menu, and then press the control panel keys in the order shown in the following table. The printer responds by displaying a status message in the message window (DSK refers to the device, and # is the device number).

- » **Note:** *When backing up data to a Jaz drive, you should increase the Disk Cache memory client to at least 750 KB. The recommended amount of memory for the disk cache client for all disk drives should be 45 KB for internal use, plus 0.5 KB per MB of disk storage, plus 120 KB of memory dedicated to caching.*
- » **Note:** *You may need to press the Next key one or more times to advance through the list of selections or options.*

Press this key...	to...	and the message window reads...
Next	Advance to the Disk Operations/ Backup Hard Disk menu	DISK OPERATIONS BACKUP HARD DISK
Select	Access the Backup Hard Disk/Dsk#: menu to find the disk you want to back up (source).	BACKUP HARD DISK DSK#x
Next or Previous	Advance through the list of attached devices to find the disk you want to back up data to (destination).	BACKUP HARD DISK DSK#x

Press this key...	to...	and the message window reads...
Select	Access the DSK#x/Full menu.	DSK#x FULL
Next (optional)	Access the DSK#x/Incremental menu.	DSK#x INCREMENTAL
Select		
Select	Begin the backup process. The printer creates a Backup directory on the Jaz or Zip drive to which you're backing data up and stores the data in that directory.  <i>If the drive has not already been formatted, the printer automatically formats it.</i>  <i>If the drive already has a Backup directory, the new backed up data overwrites the data in that directory.</i>	COPYING DATA
	If the backup requires more than one Jaz or Zip drive, the message display prompts you. Be sure to number the drives since the restore process requires you to use them in the proper sequence.	INSERT MEDIA x (x is the disk number)
	You're prompted when the backup process has finished.	BACKUP COMPLETE
Menu (several times)	Exit from the configuration menu.	CONFIGURATION ADMINISTRATION
Online	Put the printer back on line.	IDLE

## Error Messages

The following error messages may appear while you are using the Disk Operations menu:

Message	Meaning	Action
WRITE PROTECT	The drive is write-protected.	Remove the drive's write protection.

# Restoring Data from a Jaz or Zip Drive

Attach the Jaz or Zip drive from which you'll be restoring data to the printer's SCSI port or SCSI chain. Then access the Administration/Disk Operations menu, and then press the control panel keys in the order shown in the following table. The printer responds by displaying a status message in the message window (DSK refers to the device, and # is the device number).

- » **Note:** *You may need to press the Next key one or more times to advance through the list of selections or options.*

Press this key...	to...	and the message window reads...
Next	Advance to the Disk Operations/ Restore Disk menu	DISK OPERATIONS RESTORE DISK
Select	Access the Restore Disk/Dsk#: menu.	RESTORE DISK DSK#x
Next or Previous	Advance through the list of attached devices.	RESTORE DISK DSK#x
Select	Begin the restore process.	COPYING DATA
	If the original backup required more than one Jaz or Zip drive, the message display prompts you. Be sure to insert the drives in the proper sequence.	INSERT MEDIA x (x is the disk number)
	You're prompted when the backup process has finished.	RESTORE COMPLETE
Menu (several times)	Exit from the configuration menu.	CONFIGURATION ADMINISTRATION
Online	Put the printer back on line.	IDLE



## **Error Messages**

The following error message may appear while you're using the Disk Operations menu:

<b>Message</b>	<b>Meaning</b>	<b>Action</b>
SEQUENTIAL ERROR	The backup drives have been inserted in the wrong sequence.	Remove the drive and insert the correct one.





# A

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## **QMS Customer Support**

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### **In This Appendix . . .**

- “Sources of Support” on page A-2
- “QMS World-wide Offices” on page A-4

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# **Sources of Support**

Several sources of help and information are available, depending on the type of help you need.

## **Your QMS Vendor**

Your local vendor (the one from whom you bought the printer) may be best equipped to help you. Your vendor has specially trained service technicians available to answer questions, and the equipment to analyze your printer problems.

## **Your Application Vendor**

Often, “printing” problems have more to do with the application being used than with the printer. In this case, the application manufacturer is the best source of help.

## **Q-FAX**

Q-FAX, a QMS information retrieval service, provides application notes, technical support notes on common printing problems, and information about printer specifications, options, accessories, consumables, and prices.

In the United States and Canada, call (800) 633-7213 to reach Q-FAX. In all other countries, call (334) 633-3850. Have your fax number handy when you call (or place the call from your fax machine's handset).

You can choose to have either a directory (a list of currently available documents) or a specific document sent to you. The first time you call, request the directory (press 2 on your phone or fax keypad when prompted). Then call back to request specific documents. You can order up to three documents per call.

## **Internet**

The QMS server provides access to technical reports, new product announcements, a trade show schedule, and other general information about QMS.

If you have access to the World Wide Web, you can view the QMS home page at <http://www.qms.com/>. The QMS ftp resource is [ftp.qms.com](ftp://ftp.qms.com).

## QMS Customer Response Center (CRC)

You can contact the QMS Customer Response Center (CRC) in three different ways:

- **Telephone**—You can call the CRC at (334) 633-4500 (US) Monday–Friday, 7:00 am–6:00 pm, Central Time.

» **Note:** *If you call for assistance, have the following information ready so our technicians can help you more quickly:*

- ☒ Your phone number, fax number, and shipping address
  - ☒ A description of the problem
  - ☒ The printer model and serial number
  - ☒ The type of host computer you're using
  - ☒ The type and version of operating system you're using
  - ☒ The interface you're using, and, if serial, the protocol (for example, XON/XOFF)
  - ☒ The application and version you're using
  - ☒ The emulation you're using
  - ☒ Your printer firmware version (listed on the status/start-up pages)
  - ☒ A status page, if you can print one
- **Fax**—You can fax questions to the CRC at (334) 633-3716 (US). Provide the same information as listed above, and indicate whether you would like a faxed or a phoned reply.
  - **Internet**—If you have access to the World Wide Web, you can access the CRC through the QMS home page at <http://www.qms.com/>

# **QMS World-wide Offices**

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## **QMS United States and Latin America**

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### **General Contact**

1 (334) 633-4300

Fax 1 (334) 633-4866

Email [info@qms.com](mailto:info@qms.com)

Internet <http://www.qms.com>

Information on QMS products, supplies, and accessories, and on the authorized QMS remarketer or service provider nearest you

1 (800) 523-2696

### **Customer Response Center (CRC)**

Technical Assistance

1 (334) 633-4500                      7:00 am–6:00 pm Central Time

Fax 1 (334) 633-3716

Internet <http://www.qms.com>

### **Latin America Fax**

1 (334) 639-3347

### **National Service**

Service Information, Installation, and Maintenance Pricing

1 (800) 762-8894

On-Site Service and Depot Repair Information

1 (800) 858-1597                      7:00 am–7:00 pm Central Time

Spare Parts Ordering and Information

1 (334) 633-4300 x2530              8:00 am–5:00 pm Central Time

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## **QMS Canada**

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### **General Contact**

1 (514) 340-0646

Fax 1 (514) 340-0401

Supplies and Accessories                      1 (800) 268-0343 x223

### **National Service**

On-Site Service and Depot Repair Information

1 (800) 268-4969                      8:30 am–7:00 pm Eastern Time

Spare Parts Ordering and Information

1 (905) 206-9234 x238              8:30 am–5:00 pm Eastern Time

### **Bulletin Board Service**

1 (905) 206-0084

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**QMS in Japan**

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**General Contact**

(+81)-3 3779-9600

Fax (+81)-3 3779-9650

Internet <http://www.qmsj.co.jp>

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**QMS EMEA****QMS Australia**

Anitech  
Sydney Business & Tech. Centre  
52/2 Railway Parade  
2141 Lidcombe NSW  
Australia  
(+61) 2-9901 3235  
Fax (+61) 2-9901 3273  
Internet <http://www.qmsaus.com.au/>

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**QMS Benelux**

**Belgium, Netherlands,  
and all unlisted coun-  
tries**

Planetenbaan 60 'Corner Plaza'  
3606 AK Maarssen  
The Netherlands  
(+31) 346-551333  
Fax (+31) 346-550170  
Internet <http://www.qms.nl>

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**QMS France**

Vélizy Plus  
1 Bis, Rue du Petit Clamart  
78142 Vélizy Cedex  
France  
(+33) 1-410 79 393  
Fax (+33) 1-408 30 110

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**QMS GmbH**

**Germany and Austria**

Gustav Heinemann Ring 212  
D-81739 Munich  
Germany  
(+49) 89 63 02 67 0  
Fax (+49) 89 63 02 67 67

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**QMS Italy**

Via della Repubblica 56  
43100 Parma  
Italy  
(+39) 52-1231 998  
Fax (+39) 52-1232 902

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**QMS World-wide  
Offices**

<b>QMS Nordic</b> <b>Sweden, Finland, Norway, and Denmark</b>	Arenavägen 41, 6th floor 121 77 Johanneshov Sweden (+46) 8–600 01 30 Fax (+46) 8–600 01 33
<b>QMS South Africa</b>	Saskay House Unit 24 Sunninghill Business Park Peltier Road, Sunninghill, Johannesburg Republic of South Africa (+27) 11–807 6957 Fax (+27) 11–807 6960
<b>QMS UK</b> <b>United Kingdom and Ireland</b>	Old Bridge House, The Hythe Staines, Middlesex TW18 3JF United Kingdom (+44) 1784–442255 Fax (+44) 1784–461641





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